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Do on-line E-cigarette advertisements and public health messages have an effect on attitudes towards smoking and vaping?

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11/08/2016

Recruitment status
No longer recruiting

Registration date
16/08/2016

Overall study status
Completed

Last Edited
23/04/2021

Condition category
Other

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

Plain English summary of protocol

Background and study aims
Attitudes that are consciously controlled are called explicit attitudes and are often measured using surveys or questionnaires. However, people may sometimes respond to these types of measures in a way that is socially desirable rather than indicating what they may actually think. For example, smoking is now stigmatized in society and people might be reluctant to show any positive attitudes towards cigarettes. Additionally, people also have implicit attitudes, these are reactions which are automatic and unconscious and cannot be controlled. Therefore, implicit and explicit attitudes may sometimes differ. This study will investigate the relationship between implicit and explicit attitudes toward e-cigarettes and whether these attitudes are linked to people's attitudes towards tobacco cigarettes. Furthermore, it will determine whether smokers, vapers and non-smokers have different attitudes towards e-cigarettes. Since the introduction of e-cigarettes, sales have escalated and advertising of these products is a growing market. E-cigarette companies can advertise nicotine in ways in which tobacco cigarette companies have been banned from doing in recent years. However, the effect of advertising a nicotine product on smokers and vapers is yet unknown and there is a concern that viewing adverts of people using e-cigarettes may normalise tobacco smoking thus promoting the use of tobacco cigarettes as well as e-cigarettes. This study will investigate whether viewing an image of an on-line e-cigarette changes people's implicit and explicit attitudes towards tobacco and e-cigarettes. Additionally, this study will investigate whether viewing an image of an anti-smoking message will change attitudes towards tobacco or e-cigarettes. It has been shown that anti-smoking media campaigns are successful in encouraging quit attempts and reducing smoking. However, it has unknown what effect these images may have on attitudes towards e-cigarettes and whether these differ in smokers, vapers and non-smokers.

Who can participate?
Students, staff and people from the local community, between the ages of 18 to 25 years old, can volunteer.

What does the study involve?
Participants are randomly allocated into an advert group or a control group. On the first day of

testing all the participants complete two on-line computer based tasks which measure implicit and explicit attitude and fill in a questionnaire about their smoking history. Two days later the participants return. The advert group is shown an image of an on-line e-cigarette advert or an anti-smoking image for 30 seconds. The control group is shown a very similar image to either the advert or anti-smoking message, with some words and pictures changed so that the participant does not associated the image with smoking or vaping. After viewing the image the participants complete the same two computer based attitude tasks. The same tests are repeated one week later.

What are the possible benefits and risks of participating?
Participants will receive £30 cash if they complete all 3 parts of the task. Alternatively, psychology students can take credits instead which are required to pass their psychology modules. There are no risks involved.

Where is the study run from?
London South Bank University (UK)

When did the study start and how long is it expected to run for?
September 2015 to February 2017

Who is funding the study?
Cancer Research UK

Who is the main contact?
Dr Paula Booth

Contact information

Type(s)
Public

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Study information

Scientific Title
The effects of on-line E-cigarette advertising on implicit and explicit attitudes towards tobacco and E-cigarettes and public health message efficacy in young adults.

Study objectives
1. Explicit measures of attitude are consciously controlled and are often measured using questionnaires or surveys. In contrast, implicit attitudes are based on automatic associations and reaction times. It is argued that responses to explicit attitude measures may be influenced by social desirability bias. For example, people may be reluctant to show positive attitudes towards behaviours such as smoking cigarettes which are stigmatized. Conversely, implicit attitudes are more strongly associated with behaviour, for example tobacco smokers have a more positive response (or a less negative response) towards cigarettes than non-smokers. Results from previous literature show that often outcomes from measures of implicit and explicit attitudes towards tobacco cigarettes differ. To date little research has been carried out on the relationship between explicit and implicit attitudes towards e-cigarettes, the effect of attitudes towards e-cigarettes on tobacco cigarette attitudes and if these attitudes differ in non-smokers, vapers and smokers.
Hypotheses:
1.1. That there will be a positive association between explicit and implicit attitudes towards e-cigarettes.
1.2. The association between e-cigarettes and tobacco attitudes will be positive, but the effect may be moderated by sample – being higher for smokers than for vapers. Researchers will test for an association between these constructs for non-smokers, but there is insufficient a-priori evidence to make a directional hypothesis for this group.

2. Research into the effects of e-cigarette advertising on e-cigarettes shows that it encourages more positive explicit attitudes towards e-cigarettes. However, findings are more inconsistent for the effect of e-cigarette adverts on attitudes towards tobacco cigarettes. Some research suggests that viewing e-cigarette adverts may encourage greater use of tobacco smoking as well as e-cigarette use. Conversely, other research has shown that e-cigarette advertisements increase disapproval of tobacco cigarettes.

Hypotheses:
2.1. Viewing an on-line e-cigarette advertisement will change attitudes towards tobacco and e-cigarettes in smokers and vapers. Positive changes are expected in the case of e-cigarettes. There is insufficient consistent evidence to make predictions for the effects of e-cigarettes on tobacco. Researchers will also test these effects for non-smokers, but insufficient evidence is available to make directional hypotheses for this group.
2.2. Changes in attitudes towards tobacco and e-cigarettes, after viewing an on-line advert, will be sustained after a week.

3. Previous literature has shown that mass anti-smoking marketing campaigns have effectively encouraged quit attempts and reduced tobacco smoking prevalence in adults. It has not been tested whether anti-smoking campaigns may have an effect on attitudes towards e-cigarettes. Alternatively e-cigarette advertising may undermine the positive effect of health messages on tobacco smokers.
Hypotheses:
3.1. Attitudes towards e-cigarettes at baseline may moderate the effects of message efficacy on post message tobacco attitudes, with higher e-cigaratte attitudes being linked to lower levels of tobacco attitude change.

Ethics approval required
Old ethics approval format

Ethics approval(s)
London South Bank University Research Ethics Committee, 2 March 2016. ref: UREC 1602

Primary study design
Interventional

Study design
Single-centre study with a pre and post interventional, between participant design.

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Implicit and Explicit Attitudes

Interventions
In each experiment, participants will be stratified into a smoking, vaping or non-smoking group. Each participant will then be randomly assigned to either the advert or control condition using an Excel-based covariate adaptive randomization program. In Experiment 1 the advert group is shown an image of an on-line e-cigarette advert and the control group a similar image of a toothpaste advertisement. In Experiment 2, the advert group will view an anti-smoking image and the control group a similar image advertising train travel. After viewing the image the participants complete the same two computer based attitude tasks. The same tests are repeated one week later.

Intervention Type
Other

Primary outcome(s)

1.Measures of implicit attitude based on reaction time will be collected using two Single Target, Personalised, Implicit Attitude Tests (SC-IAT-P) for E-cigarettes and tobacco cigarettes
2.Measures of explicit attitude will be collected based on ratings from a 7 point Likert scale (strongly agree to strongly disagree) of 10 different bi-polar statements (For example,'thinking about e-cigarettes/tobacco cigarettes, please indicate if you think they are: bad/good)

All data will be collected pre-intervention, 48-72 hours later post intervention and at a 1 week follow-up.

Key secondary outcome(s)
Information will be gathered for experimental control at baseline.
1. Current usage and dependence on cigarettes
2. Strength of beliefs about e-cigarettes
3. Motivation to quit and the number of previous quit attempts
4. Awareness of e-cigarette advertising and anti-smoking campaigns

Completion date
28/02/2017

Eligibility

Key inclusion criteria
1.18 to 25 years old
2. smoker, vaper or non-smoker but not a dual user (i.e. both smoker and vaper).

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Sex
All

Key exclusion criteria
1. Breastfeeding
2. Pregnant
3. Serious medical condition
4. Both a smoker and a vaper
5. Outside the age range of 18 to 25 years old

Date of first enrolment
18/04/2016

Date of final enrolment
18/12/2016

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
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Sponsor information

Organisation
London South Bank University

ROR
https://ror.org/02vwnat91

Funder(s)

Funder type
Charity

Funder Name
Cancer Research UK

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

Funding Body Type
Private sector organisation

Funding Body Subtype
Other non-profit organizations

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol article		23/06/2017	23/04/2021	Yes	No