To what extent can the effects of increasing healthier food availability on food selection be explained by individual food preferences? A follow-up study

| Submission date | Recruitment status No longer recruiting | [X] Prospectively registered | | |
|-------------------------------|--|--------------------------------|--|--|
| 07/04/2020 | | ☐ Protocol | | |
| Registration date 20/04/2020 | Overall study status Completed | Statistical analysis plan | | |
| | | [X] Results | | |
| Last Edited 27/10/2022 | Condition category Nutritional. Metabolic. Endocrine | [] Individual participant data | | |
| 2//10/2022 | Nuclicional, Metabolic, Endocrine | | | |

Plain English summary of protocol

Background and study aims

Increasing the availability of healthier or more plant-based foods increases their selection. One possible mechanism that might underlie these effects is individuals' prior preferences, whereby selections reflect individuals' most-preferred option from the available range. The first exploration – to the researchers' knowledge – of the role of prior preferences as a possible mechanism underlying the effects of manipulating the relative availability of healthier and less healthy options suggested that a large majority of selections reflect the most-preferred option. However, only small differences were observed in preferences by option healthiness in this initial study. The role of preferences will be further explored in this study.

Who can participate?

Adults over the age of 18 with no dietary restrictions

What does the study involve?

The study will be conducted online. First, each study will establish each participant's baseline relative preferences between all the food options used in the study. To do so, participants are asked to choose which option they would prefer to eat right now from pairs of food options. These pairs represent every possible pairing of food options used in the study. This allows each food option to subsequently be ranked in terms of each participant's preferences. Participants are then shown two images, with four options displayed in each, and asked to again select the option they would most like to eat right now. These images will show either predominantly-less-healthy main meals, or predominantly-healthier main meals. The predominantly-less-healthy set will contain three options defined as less-healthy and one healthier option; vice versa for the predominantly-healthier set. Participants will see each of these two images in a random order. The data from the study will be used to assess the extent to which increasing the availability of healthier options alters the healthiness of participants' most-preferred option, and the extent to which the option selected by participants corresponds to their most-preferred option.

What are the possible benefits and risks of participating? Participants will be paid the equivalent of UK minimum wage for participating in these studies. There are no known risks of participating in either study.

Where is the study run from?
Behaviour and Health Research Unit, University of Cambridge (UK)

When is the study starting and how long is it expected to run for? February 2020 to July 2020

Who is funding the study? Wellcome Trust (UK)

Who is the main contact?

Dr Rachel Pechey
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(updated 07/01/2021, previously: rachel.pechey@medschl.cam.ac.uk)

Contact information

Type(s)

Scientific

Contact name

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Additional identifiers

EudraCT/CTIS number

Nil known

IRAS number

ClinicalTrials.gov number

Nil known

Secondary identifying numbers

Pre.2020.030

Study information

Scientific Title

Increasing the relative availability of healthier vs less healthy food: can impact be explained in terms of prior preferences? An extension study

Study objectives

- 1. Reducing less healthy options and increasing healthier options increases the likelihood of participants' most-preferred option being a healthier option
- a. Reducing less healthy options and increasing healthier options increases the likelihood of participants' most-preferred option being a healthier option to a greater extent for those with higher education (vs lower education)
- 2. Participants' most-preferred option within the offered range of products will often, but not always, correspond to the option that participants select
- I. Participants' most-preferred option within the offered range of products is more likely to correspond to the option that participants select when the option selected is less-healthy (vs healthier)

Ethics approval required

Old ethics approval format

Ethics approval(s)

Approved 30/03/2020, Cambridge Psychology Research Ethics Committee (School of the Biological Sciences, 17 Mill Lane, Cambridge, CB2 1RX, UK; +44 (0)1223 766894; Cheryl. torbett@admin.cam.ac.uk), ref: Pre.2020.030

Study design

Single-centre 2x2 within-subjects design

Primary study design

Interventional

Secondary study design

Randomised cross over trial

Study setting(s)

Internet/virtual

Study type(s)

Other

Participant information sheet

Not available in web format, please use the contact details to request a patient information sheet

Health condition(s) or problem(s) studied

Unhealthy diet

Interventions

When accessing the online study, participants are randomly allocated to the order in which they complete two conditions, which vary in terms of the mix of healthier and less healthy foods offered and the type of food offered:

Condition 1: Selection contains 1 healthier and 3 less healthy main meals.

Condition 2: Selection contains 3 healthier and 1 less healthy main meals.

Participants will be shown an image of a set of options representing each condition, in a random order. For each image, participants will be asked to select which option they would prefer to eat right now.

The food options assigned to each condition will be randomly selected from a pool of available healthier vs. less-healthy options. The position of selected food options in each image will also be randomised. Randomisation will be performed by the Qualtrics survey platform.

Intervention Type

Behavioural

Primary outcome measure

Measured at a single timepoint (on completion of the online survey):

- 1. Healthiness (healthier vs. less-healthy) of participants' most-preferred option (measured via rankings determined from selections between each possible item pair in the first part of the study) in each of the two conditions in the online selection task
- 2. Correspondence between participants' selections in each of the two conditions in the online selection task and their most-preferred options (measured via rankings determined from selections between each possible item pair in the first part of the study)

Secondary outcome measures

Measured at a single timepoint (on completion of the online survey):

Selection of a healthier (vs. less healthy) food option in the online selection task for each of the two conditions

Overall study start date

01/02/2020

Completion date

31/07/2020

Eligibility

Key inclusion criteria

- 1. Adults aged over 18 years
- 2. Participants currently residing within the UK

Participant type(s)

Healthy volunteer

Age group

Adult

Lower age limit

18 Years

Sex

Both

Target number of participants

1080

Total final enrolment

1078

Key exclusion criteria

Dietary restrictions

Date of first enrolment

22/04/2020

Date of final enrolment

30/04/2020

Locations

Countries of recruitment

England

United Kingdom

Study participating centre Behaviour and Health Research Unit

University of Cambridge Institute of Public Health Cambridge United Kingdom CB2 0SR

Sponsor information

Organisation

University of Cambridge

Sponsor details

Greenwich House Madingley Rd Cambridge England United Kingdom CB3 0TX +44 (0)1223333543 research governance@medschl.cam.ac.uk

Sponsor type

University/education

Website

http://www.cam.ac.uk/

ROR

https://ror.org/013meh722

Funder(s)

Funder type

Research organisation

Funder Name

Wellcome Trust

Alternative Name(s)

Funding Body Type

Private sector organisation

Funding Body Subtype

International organizations

Location

United Kingdom

Results and Publications

Publication and dissemination plan

- 1. Planned submission of the main results of this study for publication in a peer-reviewed journal
- 2. Dissemination of the results to the public, policymakers and other researchers through targeted social media

Intention to publish date

31/12/2020

Individual participant data (IPD) sharing plan

The data-sharing plans for the current study are unknown and will be made available at a later date

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? |
|-----------------|---------|--------------|------------|----------------|-----------------|
| Results article | | 30/04/2022 | 27/10/2022 | Yes | No |