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Online Supermarket 'Salt Swap'

Submission date
05/02/2018

Recruitment status
No longer recruiting

Registration date
09/03/2018

Overall study status
Completed

Last Edited
05/10/2022

Condition category
Circulatory System

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

Plain English summary of protocol

Background and study aims
This study looks at the impact of offering lower-salt alternatives to shoppers in an online-supermarket experiment. This is important because reducing salt intake has been shown to reduce blood pressure and this reduces the chance of heart disease and stroke. For many high salt foods there are lower salt alternatives, offering shoppers the chance to reduce the amount of salt they eat just by swapping to a different variety or brand of the same food. For example, one supermarket own-brand smoked back bacon comes in several varieties with salt content varying from approximately 2g per serving (2 rashers or ~70g), to over 3g per serving of the same size at the same price. This offers a 1g salt reduction in a single serving of bacon. To put this in context, the average salt intake in the UK is over 8g per day yet the recommended maximum salt intake for adults is 6g per day, with some evidence to suggest his should be even lower. Swapping to different brands of the same product can also offer reasonable size salt reductions. The aim of this study is to test the effect of offering shoppers' alternative products with a large reduction in salt (at least 20% less salt) but which may be less similar to their original choice, compared to just offering alternative foods that only a little bit lower in salt but are very similar to the product they initially selected in their shopping. For example, where a shopper might choose a type of mayonnaise with 1.125g/100g of salt, a very similar product with just a little less salt would be a different brand or variety of mayonnaise (e.g. with 1g/100g of salt) offering only a small reduction in salt (0.125g/100g or 11% less salt). An alternative with quite a lot less salt might be a balsamic dressing with only 0.25g/100g of salt (almost a gram, or 80% less salt). Although this swap offers a much larger reduction in salt, balsamic dressing is not quite the same as mayonnaise so a shopper might find it less acceptable as a swap. The specific aims of this study are to compare the impact of two salt swapping strategies on the overall salt content of groceries in a typical shopping basket, and to find out what type of lower-salt alternatives are most acceptable to shoppers.

Who can participate?
People aged 18 and over with high blood pressure

What does the study involve?
A virtual online supermarket website is used to test participants' responses' to being offered lower salt foods when they are shopping. This is not a real online supermarket and participants are not asked to spend any of their own money and do not take home any groceries. Participants are asked to complete an online grocery shopping task. The task involves shopping to a pre-

determined shopping list of about 15 items. The list focuses on items offering potential for swapping to a reduced salt alternative such as sandwiches, soup, processed meats, breakfast cereals, and ready meals. Swaps are offered at point of selection i.e. when a participant selects an item to put in their shopping basket, if a suitable swap exists, the participant is offered the chance to swap the item. Participants are randomly allocated to either be offered a 'lower salt' alternative product (between 5-20% less salt), or to be offered both one 'lower salt' and one 'much lower salt' (at least 20% less salt) alternative product. Products are categorised as 'lower salt' or 'much lower salt' in relation to the original purchase. For example, if the shopping list item is 'cold meat to put in a sandwich' and the participant chooses ham, a 'lower salt' swap might be a different brand of ham with lower salt content, as is currently offered in the Saltswitch app, e.g. a salt reduction from 2.5g/100g to 1.7g/100g). A 'much lower salt' swap might be sliced turkey resulting in a salt reduction to 1.1g/100g. Products offered as swaps are within the same general price and weight range as the original item. The task is expected to take 20-30 minutes.

What are the possible benefits and risks of participating?
Participants may benefit by learning about lower salt alternatives to foods they regularly buy. There are no risks involved with this study. It can be completed online from home or any location where they can access the internet.

Where is the study run from?
University of Oxford (UK)

When is the study starting and how long is it expected to run for?
November 2016 to September 2017

Who is funding the study?
1. British Heart Foundation (UK)
2. Oxford Collaboration for Leadership in Applied Health Research and Care (UK)

Who is the main contact?
Sarah Payne Riches
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Study website
https://woodssupermarket.co.uk/login

Contact information

Type(s)
Public

Contact name
Ms Sarah Payne Riches

Contact details
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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
tbc

Study information

Scientific Title
Salt Swap: The impact of offering shoppers lower-salt foods in an experimental online supermarket (Online Supermarket 'Salt Swap')

Study objectives
Offering substantially reduced salt alternatives, over and above within-category alternatives with minimally less salt, will have a greater impact on reducing the salt content of shoppers' baskets; and these substantially lower salt alternatives are acceptable to shoppers, even if the alternative product is not from the same narrow food category as the original.

Ethics approval required
Old ethics approval format

Ethics approval(s)
University of Oxford, Central University Research Ethics Committee (CUREC), 20/01/2017, ref: R42142/RE001

Study design
Experimental randomised trial with a pre-post within-person design

Primary study design
Interventional

Secondary study design
Randomised parallel trial

Study setting(s)
Internet/virtual

Study type(s)
Prevention

Participant information sheet

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

Health condition(s) or problem(s) studied
Hypertension

Interventions
This study will use a bespoke virtual online supermarket shopping (OLS) platform, hosted by The University of Oxford, which emulates a real online supermarket for research purposes on food purchasing interventions. Participants will be asked to complete an online grocery shopping task. The task will involve shopping to a pre-determined shopping list of approximately 15 items. The list will focus on items offering potential for swapping to a reduced salt alternative such as sandwiches, soup, processed meats, breakfast cereals, and ready meals. Swaps will be offered at point of selection i.e. when a participant selects an item to put in their shopping basket, if a suitable swap exists, the participant will be offered the chance to swap the item.

Participants were randomised automatically through the study website after confirming eligibility and consent, using a computer generated allocation sequence, to one of the two intervention conditions:
1. Participant offered a 'LOWER SALT' alternative product (between 5-20% less salt)
2. Participant offered both one 'LOWER SALT' and one 'MUCH LOWER SALT' (at least 20% less salt) alternative product

The participant's original choice of product before being offered any swap will act as the control.

Products will be categorised as 'lower salt' or 'much lower salt' in relation to the original purchase. For example, if the shopping list item is 'cold meat to put in a sandwich' and the participant chooses ham, a 'lower salt' swap might be a different brand of ham with lower salt content, as is currently offered in the Saltswitch app, e.g. a salt reduction from 2.5g/100g to 1.7g /100g). A 'much lower salt' swap might be sliced turkey resulting in a salt reduction to 1.1g/100g. Products offered as swaps will be within the same general price and weight range as the original item.

The intervention task was expected to take between 20-30 mins. There was no follow up period.

Intervention Type
Behavioural

Primary outcome measure
Salt content of foods in the total basket (measured in g/100g), recorded automatically by the study website at completion of the study task

Secondary outcome measures
Recorded automatically by the study website at completion of the study task:
1. The mean salt reduction across all foods, measured in mg/MJ
2. The mean reduction in salt content of swapped items (mg)
3. The proportion of swaps accepted out of those offered
4. Frequency of swaps offered
5. The proportion of accepted swaps out of total shopping basket items
6. The overall cost of the shopping basket
7. The total energy, energy density, sugar and saturated fat content of the shopping basket

Overall study start date
07/11/2016

Completion date
12/09/2017

Eligibility

Key inclusion criteria
1. People aged 18 or over
2. Self-reported high blood pressure
3. Speak English
4. Regularly shop in a supermarket spending at least £25 per shop
5. Responsible for at least some of their household grocery shopping

Participant type(s)
Healthy volunteer

Age group
Adult

Lower age limit
18 Years

Sex
Both

Target number of participants
900

Key exclusion criteria
1. People who are following a medically prescribed diet or restricted diet such as a vegetarian, vegan or gluten-free diet
2. People without self-reported hypertension
3. Not meeting the other inclusion criteria

Date of first enrolment
15/06/2017

Date of final enrolment
12/09/2017

Locations

Countries of recruitment
United Kingdom

Study participating centre

Online - not centre specific
United Kingdom
-

Sponsor information

Organisation
University of Oxford, CTRG

Sponsor details
Joint Research Office
Block 60, Churchill Hospital
Old Road, Headington
Oxford
England
United Kingdom
OX3 7LE

Sponsor type
University/education

ROR
https://ror.org/052gg0110

Funder(s)

Funder type
Charity

Funder Name
British Heart Foundation

Alternative Name(s)
the_bhf, The British Heart Foundation, BHF

Funding Body Type
Private sector organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
United Kingdom

Funder Name
National Institute for Health Research

Alternative Name(s)
National Institute for Health Research, NIHR Research, NIHRresearch, NIHR - National Institute for Health Research, NIHR (The National Institute for Health and Care Research), NIHR

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Publication and dissemination plan
Planned publication in a high-impact peer reviewed journal by July 2018.

Intention to publish date
01/07/2018

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	results	01/02/2019		Yes	No
Protocol article		11/10/2019	05/10/2022	Yes	No