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PortionControl@HOME: The development and evaluation of a comprehensive intervention aimed at food portion size to prevent weight gain or stimulate weight loss in overweight and obese adults

Submission date
20/02/2013

Recruitment status
No longer recruiting

Registration date
08/04/2013

Overall study status
Completed

Last Edited
26/08/2014

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
Overweight and obesity are increasingly prevalent in the Netherlands and contribute to the development of cardiovascular diseases, diabetes type II and some types of cancer. Food portion sizes have increased in the last decades and are a powerful determinant of energy intake. Interventions that address peoples selection of food portion sizes are scarce, and more research into effective interventions is needed. So far, some interventions targeted at portion sizes have been evaluated that were situated in point-of-purchase settings. However, educational interventions directed at portion size are scarce. Therefore the aim of this study is to develop and evaluate an intervention aimed at portion size to prevent weight gain or stimulate weight loss in overweight and obese adults and to assess how well this portion control program works.

Who can participate?
Adult (18-60 years) having a body mass index (BMI) above 25 who are the nutritional gatekeeper of the family (being responsible for groceries and preparing dinner within the family) and residing in or within a distance of 15 kilometres of one of the participating six municipalities in the Netherlands.

What does the study involve?
Participants will be randomly allocated to one of two groups: an intervention group and a control group. The intervention group will receive the PortionControl@HOME intervention program over a three month period whereas the control condition will not (usual care condition). Measurements will take place before the start of the intervention (baseline), and at three, six and twelve months after the start of the intervention. At baseline weight and length will be objectively measured by the research team during a home visit using the Marsden MPMS-250 digital scale and a SECA 214. Weight was also objectively measured at six months (Marsden MPMS-250 digital scale). At three and twelve months, self reported measures of weight will be

used. Moreover, during the four measurements, participants will complete questionnaires to determine intervention related outcomes (e.g. portion control behaviour).

What are the possible benefits and risks of participating?
It the intervention is effective, benefits of participating are weight loss or weight maintenance. Individuals who are allocated to the control group will receive the intervention program once the study is completed and are able to complete the program if they wish to do so. There will be no risks to those taking part.

Where is the study run from?
The PortionControl@HOME study has been set up by the VU University Amsterdam, Department of Health Science and EMGO+ Institute for Health and care research, The Netherlands

When is the study starting and how long is it expected to run for?
The study started in January 2012 and ran for twelve months.

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

Who is the main contact?
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Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
50-50105-96-613

Study information

Scientific Title
PortionControl@HOME: The development and evaluation of a comprehensive intervention aimed at food portion size to prevent weight gain or stimulate weight loss in overweight and obese adults a randomized controlled trial

Acronym
PortionControl@HOME

Study objectives
1. The PortionControl@HOME intervention will be more effective in preventing gain or achieving modest weight loss among overweight and obese adults compared to no intervention.
2. The PortionControl@HOME intervention will be more effective in improving portion control behaviour in overweight and obese adults compared to no intervention.

Ethics approval required
Old ethics approval format

Ethics approval(s)
The study was approved by the Medical Ethical Committee VU medical Center Amsterdam, 2010 /75

Study design
Randomised controlled trial

Primary study design
Interventional

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Overweight / Obesity

Interventions
Participants in the intervention condition passed through the PortionControl@HOME intervention program within a three month period (spring 2012). PortionControl@HOME is a comprehensive lifestyle intervention program aimed at adequate portion size selection to control energy intake. The intervention is offered at home and in the neighbourhood (e.g. community centres)of the participants. The intervention includes four components:

1. PortionSize@warenessTool: The aim of the online interactive tool was to increase awareness about the relationship between portion size and energy intake and to increase awareness about recommended serving sizes and about contributing factors (i.e. value marketing) that contribute to the selection and intake of large food portions.
2. Portion Control Strategies: To stimulate adequate portion size selection and intake, the intervention group were provided with so-called portion control strategies that enable people to regulate the portion size they select and eat. The strategies were introduced in a short video introduction. An educational book delineated the influences of portion sizes, explored the strategies in more detail and included assignments that encouraged participants to review all strategies, to determine which strategies could be useful and to determine if the strategies were feasible to implement in daily life. Subsequently, assignments helped people to write down action and coping plans for their selected strategies and a self-monitoring form was provided by which participants could track their use of the strategies.
3. Portion control cooking class: An additional solution besides portion size reduction might be to keep the same portion size, but lower the energy density of portions. In doing so, one is still able to select a larger volume, with fewer consequences for energy intake. Providing knowledge

and increase skills to prepare meals with a lower energy density and teach the necessary skills in doing so were part of the intervention by means of three subsequent bi-weekly cooking courses that was leaded by a trained dietician.
4. Portion control Home-Screener: The food home environment is an important factor in influencing energy intake and several aspects of this environment influence portion control mechanisms. To shape a food home environment that supports adequate portion control behavior, individuals could screen their home-environment by means of the so-called home-screener. Based on their screening, participants received tips to create a portion control food home environment.

Intervention Type
Other

Phase
Not Applicable

Primary outcome(s)
Weight/ Body Mass Index

Measurements will take place before the start of the intervention (baseline), and at three, six and twelve months after the start of the intervention. At baseline weight and length was objectively measured by the research team during a home visit using the Marsden MPMS-250 digital scale and a SECA 214. Weight was also objectively measured at six months (Marsden MPMS-250 digital scale). At three and twelve months, self reported measures of weight were used.

Key secondary outcome(s))
Portion control behaviour measured at baseline, and at three, six and twelve months after the start of the intervention.

Completion date
01/04/2013

Eligibility

Key inclusion criteria
1. Adult (18-60 years), male and female
2. Body mass index (BMI) above 25
3. Residing in or within a distance of 15 kilometres of one of the participating six municipalities
4. Nutritional gatekeeper of the family (being responsible for groceries and preparing dinner within the family)

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Upper age limit
60 years

Sex
All

Key exclusion criteria
1. Report taking medication for one of the four diseases associated with overweight/obesity: 1) Diabetes Mellitus. 2) Cardio vascular diseases. 3) Cancer, 4) Clinical depression.
2. Report Visiting a dietician / on a diet at the moment of registration
3. Report participating (or participated previously) in an intensive weight loss treatment
5. Report being pregnant
6. Only one family member could participate in the study

Date of first enrolment
10/01/2012

Date of final enrolment
01/04/2013

Locations

Countries of recruitment
Netherlands

Study participating centre
De Boelelaan 1085
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Sponsor information

Organisation
Netherlands Organisation for Health Research and Development (ZonMw) (Netherlands)

ROR
https://ror.org/01yaj9a77

Funder(s)

Funder type
Government

Funder Name
Netherlands Organisation for Health Research and Development (ZonMw) (Netherlands) 50-50105-96-613

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/02/2015		Yes	No