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The effect of improving the content of food parcels on dietary intake in Dutch food bank recipients

Submission date
11/01/2019

Recruitment status
No longer recruiting

Registration date
21/01/2019

Overall study status
Completed

Last Edited
10/02/2020

Condition category
Other

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

Plain English summary of protocol

Background and study aims
Food bank users are often food insufficient and have poorer diet quality compared to non-users. Food parcels, supplied to food bank users, provide an opportunity to improve their diets. However, the content of these food parcels is not in line with dietary recommendations. This suggests that the nutritional guidelines for a healthy diet cannot be met if food supplied by food banks is the sole food source, which consequently may lead to higher risks on nutrition related chronic diseases. Therefore, we aimed to assess whether improving the nutritional quality of the food parcels, by adding healthy foods and removing unhealthy foods, will positively impact diet quality of food bank recipients.

Who can participate?
All food bank recipients of three selected food banks in the Netherlands (i.e. Alkmaar, Apeldoorn and Enschede) could participate if they were at least 18 years old, recipients for at least one month, possible to contact by phone, collect their own food parcel, and if they had an adequate command of the Dutch language to participate in oral and written interviews.

What does the study involve?
We performed a randomized controlled trial with cross-over design with two consecutive periods, lasting 4 weeks each. Per food bank, participants were randomly assigned to one of the six possible diet sequences. The study consisted of the following intervention conditions:

1. The control condition: the standard food parcel, with an additional non-food item.
2. Experimental condition 1: the standard food parcel in which snacks were replaced by staple foods, with an additional non-food item.
3. Experimental condition 2: the standard food parcel with additionally the recommended daily amount of fruit and vegetables for all household members for 7 days (4 days fresh, and 3 days non-perishable vegetables).
4. Experimental condition 3: the standard food parcel in which snacks were replaced by staple foods with additionally the recommended daily amount of fruit and vegetables for all household members for 7 days (4 days fresh, and 3 days non-perishable vegetables).

What are the possible benefits and risks of participating?
A possible benefit of the study is a healthier dietary intake. There are no side effects.

Where is the study run from?
The study was run from the Vrije University Amsterdam, Amsterdam, The Netherlands. Participating food banks were Alkmaar, Apeldoorn and Enschede, where measurements took place.

When is the study starting and how long is it expected to run for?
The study started 18 October 2012 and ended 10 January 2013. Per food bank, the study lasted 8 weeks.

Who is funding the study?
The study, which is part of the Food Bank Study, was funded by a grant from the Netherlands Organization for Health Research and Development (115100003)

Who is the main contact?
Judith Neter, email; judith.neter@vu.nl

Contact information

Type(s)
Scientific

Contact name
Miss Judith Neter

Contact details
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Additional identifiers

Protocol serial number
2010-18

Study information

Scientific Title
The effect of improving the content of food parcels on dietary intake in Dutch food bank recipients - a randomized controlled trial

Study objectives
Improving the content of food parcels will lead to healthier dietary intake of Dutch food bank recipients

Ethics approval required

Old ethics approval format

Ethics approval(s)
Does not require ethics approval: the Medical Ethical Committee of the VU Medical Center in Amsterdam, 29/09/2010, ref. 2010/278.

Study design
Randomized controlled trial, cross-over

Primary study design
Interventional

Study type(s)
Other

Health condition(s) or problem(s) studied
Dietary intake

Interventions
We performed a randomized crossover controlled trial with two consecutive periods, lasting 4 weeks each. Per food bank, the trial lasted 8 weeks in total. Per food bank, participants were randomly assigned by hand to one of the ten following possible sequences:
1. control condition - experimental condition 1
2. control condition - experimental condition 2
3. control condition - experimental condition 3
4. experimental condition 1 - control condition
5. experimental condition 1 - experimental condition 3
6. experimental condition 2 - control condition
7. experimental condition 2 - experimental condition 3
8. experimental condition 3 - control condition
9. experimental condition 3 - experimental condition 1
10. experimental condition 3 - experimental condition 2

The trial consisted of the following intervention conditions:
1. The control condition: the standard food parcel supplied by the food bank with an additional non-food item.
2. Experimental condition 1: the standard food parcel supplied by the food bank in which snacks (e.g. potato chips, cookies, chocolate) were replaced by staple foods (e.g. pasta, rice), with an additional non-food item.
3. Experimental condition 2: the standard food parcel supplied by the food bank with additionally the recommended daily amount of fruit (2 pieces) and vegetables (200 grams) for all household members for 7 days (4 days fresh, and 3 days non-perishable vegetables).
4. Experimental condition 3: the standard food parcel supplied by the food bank in which snacks (e.g. potato chips, cookies, chocolate) were replaced by staple foods (e.g. pasta, rice) with additionally the recommended daily amount of fruit (2 pieces) and vegetables (200 grams) for all household members for 7 days (4 days fresh, and 3 days non-perishable vegetables).

Intervention Type
Other

Primary outcome(s)

Differences in dietary intake of the following food groups and nutrients (based on the Dutch Food Composition Table) between the intervention conditions were measured with multiple 24 hour recalls per participant at the end of each intervention condition (after 4 and after 8 weeks):
Nutrients:
1.Energy (kcal)
2. Protein (en%)
3. Mono- and disaccharides (en%)
4. Polysaccharides (en%)
5. Total fat (en%)
6. Saturated fat (en%)
7. Dietary fiber (g)
8. Vitamin C (mg)
9. Sodium (g)
10. Potassium (mg)
Food groups:
1. Vegetables (g)
2. Soya and vegetarian products (g)
3. Sugar, candy, sweet filling and sweet sauces (g)
4. Pastry and cookies (g)
5. Nuts, seeds and snacks (g)
6. Grains, flour, rice (g)
7. Fruit (g)

We did not calculate an overall score as a measure of diet quality. Therefore, the above mentioned outcomes are the primary outcomes.

Key secondary outcome(s))
N/A

Completion date
10/01/2013

Eligibility

Key inclusion criteria
1. >18 years of age
2. Adequate command of the Dutch language (oral and written)
3. Recipient of a Dutch food bank >1 month
4. Collect own food parcel at the food bank
5. Possible to be contacted by phone.

Participant type(s)
Other

Healthy volunteers allowed
No

Age group
Adult

Lower age limit

18 years

Sex
All

Total final enrolment
205

Key exclusion criteria
N/A

Date of first enrolment
05/10/2012

Date of final enrolment
18/10/2012

Locations

Countries of recruitment
Netherlands

Study participating centre
Voedselbank Enschede
Hoge Bothofstraat 45
Enschede
Netherlands
7511 ZA

Study participating centre
Voedselbank Apeldoorn
Kanaal Noord 147
Apeldoorn
Netherlands
7317 AB

Study participating centre
Voedselbank Alkmaar
Pettemerstraat 39B
Alkmaar
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1823 CW

Sponsor information

Organisation
Vrije Universiteit Amsterdam

ROR
https://ror.org/008xxew50

Funder(s)

Funder type
Research council

Funder Name
The Netherlands Organization for Health Research and Development

Results and Publications

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	01/12/2020	10/02/2020	Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes