

Reduction of food-related fears and promotion of healthy dietary habits in children

Submission date 19/01/2015	Recruitment status No longer recruiting	☐ Prospectively registered ☒ Protocol
Registration date 29/01/2015	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 15/12/2020	Condition category Nutritional, Metabolic, Endocrine	☐ Individual participant data

Plain English summary of protocol

Background and study aims

Despite the wealth and affordability of food in the western world, there is concern about the composition and lack of diversity of some children's diets. The lack of diversity and the replacement of fruit and vegetables with unhealthy processed food might be a factor in the increase in obesity. Children who are reluctant to eat food that they are not familiar with (food neophobia) are a target group because their diet has low variety. The aims in this study are to reduce food neophobia among children in a nursery school (kindergarten) and promote healthy feeding practices by the children's kindergarten personnel and parents and reduce future overweight and obesity in these children and improve their dietary habits.

Who can participate?

Children born in 2012 who are attending kindergartens in the Agder counties (Norway)

What does the study involve?

20 kindergartens in the Agder counties (Norway) will be randomly selected and asked to participate. After the kindergartens have agreed to participate, they will be matched into pairs, according to city or place, number of 2012-born children attending and whether they previously had a focus on nutrition. The pairs will then be randomly selected for allocation to the intervention or control group, ten in each. At baseline, just after and 6 months of the intervention and at age 4 years old, children's parents will fill in a questionnaire about food neophobia (child and parent), selected dietary habits and feeding practices. The children will also be measured for weight and height at these timepoints. The kindergarten personnel will also fill in a questionnaire regarding feeding practices in kindergarten at these timepoints. The intervention is primarily aimed at the children and the kindergarten personnel; some parts of the intervention are also aimed at the parents. The intervention lasts for 3 months, including 9 weeks of intervention and 3 weeks without intervention topics. The kindergarten personnel attend two classes at the university to learn about the elements in the intervention. There are three main elements in the intervention in the kindergartens: kindergarten personnel use a teaching method (Sapere) to talk about food and tasting with the children to promote food joy and willingness to try new food and there are detailed descriptions of how this session is to be performed on the different days during intervention weeks; the kindergartens will prepare and serve hot lunch from a menu corresponding to the different tastes and foods talked about in the

sessions for 3 days during the intervention weeks; kindergarten personnel will integrate ten meal principles regarding responsive feeding and food joy in the meal setting. The parents will be given postcard messages corresponding to the ten meal principles in kindergarten. The control group will continue their usual sessions, meals and food and the parents do not receive any information. At baseline and the other timepoints, a taste test will be done to assess the children's behavioural neophobia.

What are the possible benefits and risks of participating?

This study will bring new knowledge about whether pedagogical and taste or food intervention aimed at children, kindergarten personnel and parents will reduce numbers of food neophobic children, improve parental and kindergarten feeding practices, and further improve the children's diet and prevent childhood overweight and obesity. Risks were not provided at the time of registration.

Where is the study run from?

University of Agder (Norway)

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

February 2012 to December 2020

Who is funding the study?

Norwegian Women's Public Health Association (Norway) and University of Agder (Norway)

Who is the main contact?

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Contact information

Type(s)

Scientific

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Additional identifiers

Study information

Scientific Title

Food courage to reduce food neophobia and promote healthy dietary habits among preschool children to prevent future overweight and obesity: a cluster randomised study

Study objectives

A pedagogical and taste intervention aimed at children, kindergarten personnel and parents will reduce numbers of food neophobic children, improve the children's diet quality and prevent future obesity.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Data Protection Official for Research, 26/03/2014, reference 37459

Primary study design

Interventional

Study design

Single-centre interventional trial

Study type(s)

Prevention

Health condition(s) or problem(s) studied

Dietary habits, food neophobia, parental and kindergarten feeding practices and child obesity

Interventions

1. The intervention is primarily aimed at the children and the kindergarten personnel; some parts of the intervention are also aimed at the parents
2. The intervention will be for 9 weeks and a pause for 3 weeks
3. Kindergarten personnel will attend one or two classes to learn about the elements in the intervention; the pedagogical leader will attend two classes
4. There are three main elements in the intervention in the kindergartens
 - 4.1. Kindergarten personnel will use a pedagogical method (Sapere) to talk about food and tasting with children; there will be detailed descriptions about how this session should be done on the different days during the intervention weeks
 - 4.2. The kindergarten will prepare and serve hot lunch from a menu corresponding to the different tastes talked about in the pedagogical sessions for 3 days during the intervention weeks
 - 4.3. Kindergarten personnel will integrate ten meal principles regarding responsive feeding in the meal setting; the parents will be given short postcard messages corresponding to the ten meal principles in the kindergarten
5. There will also be a dialogue with the parents regarding what the children have done during the week in this project (posters with pictures of activities)
6. The control group will continue with their usual pedagogical sessions, meals and food serving and the parents will not receive any information

Intervention Type

Behavioural

Primary outcome(s)

1. Food neophobia: measured with the Food Neophobia Scale (relevant items) and test of willingness to try known and unknown foods (P Pliner. Development of measures of food neophobia in children. *Appetite* 1994; 23: 147–63.) at baseline, 4 months and 10 months after baseline, and when the child is 4 years old
2. Parental and kindergarten personnel feeding practices: measured with the Comprehensive Feeding Practices Questionnaire (Musher-Eizenman D, Holub S. Comprehensive Feeding Practices Questionnaire: validation of a new measure of parental feeding practices. *J Pediatr Psychol* 2007; 32: 960–72.); parental feeding practices measured at baseline, 4 months and 10 months after baseline, and when the child is 4 years old and kindergarten personnel feeding practices measured at baseline and 4 months and 10 months after baseline

Key secondary outcome(s)

1. Weight, measured with a digital scale (Seca 877) at baseline, 4 months and 10 months after baseline, and when the child is 4 years old
2. Height, measured with a portable stadiometer (Seca 217) at baseline, 4 months and 10 months after baseline, and when the child is 4 years old
3. Body-mass index for children (iso-BMI): calculated according to the Extended International (IOTF) Body Mass Index Cut-Offs for Thinness, Overweight and Obesity in Children (<http://www.worldobesity.org/aboutobesity/child-obesity/newchildcutoffs/>) at baseline and 4 months, 10 months after baseline and when the child is 4 years old
4. Selected dietary habits (selected food items in a food frequency questionnaire), assessed at baseline, 4 months and 10 months after baseline, and when the child is 4 years old

Completion date

01/12/2020

Eligibility

Key inclusion criteria

1. Born in 2012
2. Attending the selected kindergartens in Agder, Norway

Participant type(s)

Other

Healthy volunteers allowed

No

Age group

Child

Sex

All

Key exclusion criteria

Parents do not understand the Norwegian language

Date of first enrolment

01/12/2014

Date of final enrolment

30/01/2015

Locations

Countries of recruitment

Norway

Study participating centre

University of Agder

Kristiansand

Norway

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Sponsor information

Organisation

University of Agder

ROR

<https://ror.org/03x297z98>

Funder(s)

Funder type

Other

Funder Name

Norwegian Women's Public Health Association (UK)

Funder Name

University of Agder

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/07/2017	15/12/2020	Yes	No
Results article	results	01/08/2018	15/12/2020	Yes	No
Protocol article	protocol	17/03/2016		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