ISRCTN12683953 https://doi.org/10.1186/ISRCTN12683953

An implementation intervention to increase adherence to the Norwegian school food guideline

Submission date
07/07/2019

Recruitment status
No longer recruiting

Registration date
07/08/2019

Overall study status
Completed

Last Edited
12/09/2024

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
The Norwegian national guideline on food and meals in schools is mandated by law and places a responsibility on schools to ensure good conditions for eating and good nutritional quality of food and drinks offered. Enforcement measures are weak and surveys show that implementation of the guideline varies greatly between schools and after school care settings and that guideline adherence is very low in some areas. This study aims to fill a knowledge gap regarding what measures may be taken to increase guideline adherence. We will evaluate whether providing implementation support to the participating schools will help them to achieve routines that are in line with the national guideline. We will also identify the most important factors behind improved implementation. The implementation support measures are low-cost and of low intensity, relying to a large extent on local action being spurred by increased awareness and knowledge, networking effects and sharing of best practice among the schools. If the findings are promising, the implementation support measures tested may be rolled out on a national level, or at least made available to other counties and municipalities.

Who can participate?
In the intervention county of Østfold, each school participates with the headmaster, the after school care leader and an appointed teacher (the food ambassador). However, alternative staff members may participate in place of these as long as the three functions are covered, i.e. a person representing the school's leadership team, a person representing the after school care and a person representing the class teachers. In the comparison county of Buskerud, only the headmaster and the after school care leader participate in.

What does the study involve?
All three participants from each school in the county receiving implementation support are requested to participate at the information meeting at the beginning of the study. The aim of the meeting is to increase awareness and knowledge of the guideline as well as to increase motivation and a sense of ownership to the objective of working in line with the national guideline. The teacher, or food ambassador, is also expected to participate at two educational gatherings at county level, with focus on the areas where current practice is not in line with the

guideline. The first gathering will also involve training on conducting two school level workshops to critically review current practice together with class teacher colleagues and after school care staff, respectively. The workshops will be held between the first and the second food ambassador gathering. The after school care leader will attend a three hour training on food and meals and participate in the self-evaluation workshop about food and meal practices during after school hours. At the self-evaluation workshops priority areas to work on will be identified, which the ambassador and after school care leader will follow up on.

Possible benefits and risks of participating?
The participating schools will critically review their current practices in relation to food and meals in school and get a chance to improve their practices for the benefit of the students. They get support to get their routines in line with the national guideline and as such they will better fulfill their responsibility according to various regulations to promote their students' health and well-being. On a personal level the participants will gain a better knowledge of dietary recommendations and nutritional needs of children and learn about social and pedagogical activities for the lunch breaks and ways of improving the food and meal experiences in the after school care, for the benefit of both employees and children. The food ambassador/teacher may experience that he or she is regarded as an extension of the "nanny state", and may need to handle such attitudes among colleagues. Apart from that, no risks are foreseen on a personal level. At school level there is a risk that some realize that their facilities or available procedures are not good enough to comply with food safety regulations and therefore decide to reduce or close their food provision.

Where is the study run from?
The study is run from the University of Oslo, Norway, in collaboration with the Norwegian Directorate of Health.

When is the study starting and how long is it expected to run for?
The study started with invitation letters to participate on 25 April 2019 and will run until 20 December 2019.

Who is funding the study?
The study is funded by the Norwegian Directorate of Health and the Research Council of Norway with scientific contribution from the University of Oslo through PhD supervision as well as office facilities.

Who is the main contact?
Public sector PhD Candidate Jorunn Sofie Randby
Jorunn.Sofie.Randby@helseidr.no

Contact information

Type(s)
Scientific

Contact name
Ms Jorunn Sofie Randby

ORCID ID
https://orcid.org/0000-0003-1213-0024

Contact details
P.O.Box 1046, Bilndern
Oslo
Norway
0316
47 975 72 123
jorunn.sofie.randby@helsedir.no

Additional identifiers

Protocol serial number
457729

Study information

Scientific Title
An implementation intervention targeting primary school and after school care staff to improve adherence to the Norwegian national guideline for food and meals in school

Study objectives
An implementation intervention consisting of information, training and locally conducted self-evaluation workshops by appointed internal facilitators will improve adherence to the national guideline on food and meals in primary school and after school care.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 02/04/2019, the Norwegian Centre for Research Data (Harald Hårfagres gate 29, N-5007 Bergen, Norway; +47 55 58 21 17; nsd@nsd.no), ref: 457729.

Primary study design
Interventional

Study design
Single-centre hybrid implementation-effectiveness trial with a pre-post nonequivalent control group design

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Healthy eating and well-being

Interventions
The implementation intervention will be carried out in 35 schools in one county, whereas 35 schools in another county are comparison schools. The comparison schools only respond to the pre and post intervention adherence survey.

The implementation intervention utilizes three main implementation strategies. First, an education meeting will be held for all study participants at study start, i.e. the headmaster, a teacher (the so-called “food ambassador”) and the after school care leader from all participating schools. The meeting will provide information about the study, content and rationale of the current guideline, and allowing time for questions and discussion. The aim is to increase awareness and knowledge, as well as to ensure buy-in from all study participants.

A second component is the training of the food ambassadors, who will be the lead change agent at school. These food ambassadors are teachers appointed by the headmaster at each school. The food ambassadors will participate in two physical gatherings, in September and November, with information and training, each lasting for around three hours. In between these two gatherings they are requested to invite colleagues to attend a school-based self-evaluation exercise about food and meals in school (for grade 1-7 students). First, the ambassador will conduct one workshop with class teachers who are willing to attend (or requested by the headmaster) about meal practices during regular school hours. Second, the ambassador will conduct a workshop with after school care staff, about food and meal practices during after school hours (for grade 1-4 students). Each workshop will last 1,5 hours and comprise an assessment of current practices in light of the national recommendations; discussion to identify possible improvements and areas where alignment in practice between staff is warranted; as well as identified priorities for action.

A third component is the training of the after school care leader (or another appointed staff member responsible for the food), who will attend a three-hour training on food and meals, focusing on food quality, food safety and meal planning. The after-school care leader will also participate in the self-evaluation workshop about food and meal practices during after school hours.

At the information meeting, all participants could pick up a full print of the national guideline, a poster summarizing the guideline as well as, for inspiration, a basic cookbook developed and previously distributed by the Directorate of Health to all students taking the “Food and health” class in primary education. The cookbook contains recipes and basic information on raw produce, dietary recommendations, meals, food preparation and hygiene, but is not developed for large-scale food provision.

In all communication with study participants, it will be highlighted that project staff are available to help with advice, resources and other support if needed.

Intervention Type
Behavioural

Primary outcome(s)
1. Percentage adherence to the guideline during ordinary school hours, as reported by the headmaster in the school-level questionnaire pre and post-intervention.
2. Percentage adherence to the guideline during after-school care, as reported by the after school care leader in the after school care questionnaire pre and post-intervention.

Key secondary outcome(s)
1. Quality of intervention delivery is measured using a paper and/or web-based survey with assessment by the study participants, after the training sessions.
2. Participant responsiveness is measured using a paper and/or web-based survey with assessment by the study participants, after the training sessions.

3. Ambassador’s fidelity to the facilitation role as prescribed for the self-evaluation workshops is measured using a web-based survey with self-reporting by the ambassador, after the workshop.
4. Dose of the intervention components received:
4.1. Attendance by participants at each school and after school care, as a proportion of possible /complete attendance at school/after school care level, measured by track records.
4.2. The proportion of class teachers and after school care staff participating in the workshops at school level as organized by the food ambassador.
5. Adaptations to the intervention model are collected through semi-structured personal interviews with food ambassadors during the last month of the intervention.

Completion date
31/01/2020

Eligibility

Key inclusion criteria
Headmaster, teacher, after school care staff or assistant at one of the participating centres.

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Key exclusion criteria
1. Schools that do not have both 1-4 grade and 5-7 grade students.
2. Schools that do not have an after school care for grade 1-4 students.

Date of first enrolment
25/04/2019

Date of final enrolment
04/06/2019

Locations

Countries of recruitment
Norway

Study participating centre
Department of Nutrition, University of Oslo
PO Box 1046

Oslo
Norway
0316

Sponsor information

Organisation
University of Oslo, Insitute for Basic Medical Sciences

ROR
https://ror.org/01xtthb56

Funder(s)

Funder type
Government

Funder Name
Norges Forskningsråd

Alternative Name(s)
Forskningsrådet, Norwegian Research Council, Research Council of Norway, The Research Council of Norway

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
Norway

Funder Name
Helsedirektoratet

Results and Publications

Individual participant data (IPD) sharing plan

The Norwegian Center for Research Data (NSD) will store the data and make them available to anyone who wishes to access the data (https://www.nsd.no). All of the individual participant data collected during the trial, after deidentification, will be made available with the exception of the interviews conducted at the end of the trial. The interviews will not be transcribed, but the document which summarises the data will be made available and quantitative measures will be included in the data files described below. The data available comprise the following: quantitative pre and post-intervention data on some school background variables and staff position, food and meal practices variables and summarised index measures of adherence to the national school food guideline in both interventions (n = 36) and comparison schools (n = 36). These data are contained in two different files, one covering data from a headmaster questionnaire and one file covering data from an after school care questionnaire. In addition, implementation quality variables collected during process evaluation will be available from the intervention schools and included in the post-intervention data files. All data will become available after the original journal article is published, thus probably in early 2021, and with no set end date. Written consent has been obtained by all participants in the intervention group. In the comparison group, participants consented to the study by answering the pre and post-intervention surveys, as described in their information sheet.

IPD sharing plan summary

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		02/01/2024	12/09/2024	Yes	No