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iCOOK: a 4-H program to prevent childhood obesity by teaching children and parents to cook together, eat together, and play together

Submission date
03/01/2018

Recruitment status
No longer recruiting

Registration date
11/01/2018

Overall study status
Completed

Last Edited
16/09/2019

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
Childhood obesity is a growing concern. Body mass index is a measurement of body fat based on height and weight. iCook 4-H follows a multifaceted family intervention model to approach childhood obesity prevention from three distinct, yet complementary, perspectives: cooking together, eating together, and playing together. At the core of iCook 4-H's mission is its innovative concept of bringing parents and children together to work toward a healthier lifestyle as a team. In its curriculum, the program uses Social Cognitive Theory, a learn by watching model, and the Experiential 4-H Learning Model, centered around a trifecta of doing, reflecting, and applying. Existing 4-H curricula, including Fast Foods and Youth in Motion, were adapted and utilized as resources for the program. Children are introduced to basic knife skills, recipe following, family play time opportunities, and the importance of family meals in their daily routine. Additionally, participants learn how to create well-balanced meals. Parents gain valuable information about meal planning and preparation to promote healthy and more frequent family meals. Altogether, iCook 4-H is a 5-year project for a dyad (parent-child) model. The aim of this study is to positively impact the body mass index score of children through education and training.

Who can participate?
Youth aged 9 to 10 years old and their adult primary meal preparer.

What does the study involve?
Participants are randomly allocated to one of two groups. Those in first group engage in classes that are designed to increase competency in cooking skills, family meal times, and physical activity. Those in the second group receive no education or training. Measurements, including child body mass index and adult and child surveys, are assessed at the start and at four, 12, and 24 months after completing the study.

What are the possible benefits and risks of participating?
Benefits to participating in the study: both children and adults will gain knowledge and experience to improve culinary skills, child feeding practices, family meal times, and physical

activity. Participation in this study will help to assist in creating healthier habits and environment for children. Potential to improve culinary skills and family time as well as the prevention of weight gain and chronic disease. There are some risks in learning to use culinary tools, but part of the skills are to learn how to use these tools safely and can be used for a lifetime of healthy meal preparation.

Where is the study run from?
This study is being run by the West Virginia University (USA) and takes place in Universities in the USA.

When is the study starting and how long is it expected to run for?
July 2012 to July 2018

Who is funding the study?
U.S. Department of Agriculture (USA)

Who is the main contact?
Dr Melissa Olfert

Contact information

Type(s)
Public

Contact name
Dr Melissa Olfert

Contact details
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Lifestyle Intervention Olfert Research Lab
G25 Agricultural Sciences Building
333 Evansdale Drive
Morgantown
United States of America
26506

Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
1305044336R003

Study information

Scientific Title

iCOOK: A 4-H program to promote culinary skills and family meals for obesity prevention

Study objectives
A 24-month intervention study, based on building foundational skills for competency in culinary skills, family meal times, and physical activity, will positively impact the body mass index (BMI) Z scores of children compared to a control condition at 4, 12, and 24 months.

Ethics approval required
Old ethics approval format

Ethics approval(s)
The Internal Review Board at West Virginia University, 01/02/2011, ref: 1305044336R003

Study design
A multi-site randomised controlled interventional study

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Community

Study type(s)
Prevention

Participant information sheet
No participant information sheet available.

Health condition(s) or problem(s) studied
Childhood obesity prevention

Interventions
9-10-year-old youth (and the adult primary meal preparer) are randomly assigned to either the control arm (no treatment) or the intervention arm.

In the intervention group, child and parent dyads participate in 8 two-hour instructional and hands-pn classes focused on culinary skills, family meal times, and physical activity. These classes are conducted by trained researchers. The goal of these classes is to teach obesity prevention habits to both parents and children. In the control group, the child and parent dyads receive no education or training. Outcome measures are taken at baseline and 4, 12, and 24 months follow up.

Intervention Type
Behavioural

Primary outcome measure
Body mass index (BMI) z scores of children are assessed with height and weight measurements at baseline, 4, 12 and 24 months.

Secondary outcome measures
1. Dietary quality is measured using surveys at baseline, 4, 12, and 24 months
2. Physical activity is measured using surveys at baseline, 4, 12, and 24 months
3. Cooking skills measured using surveys at baseline, 4, 12, and 24 months
4. Family Mealtime characteristics is measured using surveys at baseline, 4, 12, and 24 months
5. Quality of life is measured using surveys at baseline, 4, 12, and 24 months
6. Kitchen proficiency, food-related behaviour, feeding relationship, family mealtime routine, family dynamics and quality of life of the primary adult meal preparer are assessed using surveys at baseline, 4, 12 and 24 months

Overall study start date
26/07/2012

Completion date
26/07/2018

Eligibility

Key inclusion criteria
Youth aged 9 to 10 years old and the adult primary meal preparer.

Participant type(s)
Healthy volunteer

Age group
Mixed

Sex
Both

Target number of participants
500

Total final enrolment
228

Key exclusion criteria
1. Any kind of food allergy or sensitivity
2. Physical or medical limitations
3. No home internet
4. No parent willing to participate
5. Unwilling to eat meat or dairy

Date of first enrolment
01/09/2013

Date of final enrolment
01/09/2015

Locations

Countries of recruitment
United States of America

Study participating centre
West Virginia University
United States of America
26505

Study participating centre
University of Maine
United States of America
04469

Study participating centre
University of Tennessee
United States of America
37996

Study participating centre
University of Nebraska-Lincoln
United States of America
68588

Study participating centre
South Dakota State University
United States of America
57007

Sponsor information

Organisation
West Virginia University

Sponsor details

1 Waterfront Place
Morgantown
United States of America
26505

Sponsor type
University/education

ROR
https://ror.org/011vxgd24

Funder(s)

Funder type
Government

Funder Name
U.S. Department of Agriculture

Alternative Name(s)
United States Department of Agriculture, Department of Agriculture, U.S. Dept. of Agriculture, USDA

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United States of America

Results and Publications

Publication and dissemination plan
Exact plans for publication and dissemination are unknown at this time, but planned publication in a high-impact peer reviewed journal is expected in 2019. Additional study documents (study protocol, statistical analysis plan, etc.) will be available upon request. Please contact Dr. Melissa Olfert (Melissa.olfert@mail.wvu.edu) for requests for this information.

Intention to publish date
31/12/2019

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Dr. Melissa Olfert (Melissa.olfert@mail.wvu.edu).

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	29/08/2019	16/09/2019	Yes	No