

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effect of nutrition education through mobile application on nutritional behaviors and anthropometric parameters in overweight and obese adolescents

Protocol summary

Study aim

Determining and comparing the average of anthropometric indices including height, weight, waist circumference, BMI and BMIz (standardized BMI values) between the group using the mobile application and control groups. Determining and comparing the mean of physical activity between the group using the mobile application and control groups. Determining and comparing eating behavior (average weekly consumption of breakfast, fried foods, juices, fast foods, fruits and vegetables, milk and dairy products) between the group using the mobile application and controls group.

Design

Parallel randomized clinical trial with control groups will be performed on 72 overweight and obese adolescents. Randomization will be done using a table of random numbers.

Settings and conduct

Overweight and obese adolescents randomly selected from schools in Isfahan will be divided into three groups. The intervention group will receive a mobile app that contains customized diet plans, physical activity, and changes in eating behaviors. The control group receives information similar to the intervention group through printed papers and brochures. The third group (control) will not receive any information.

Participants/Inclusion and exclusion criteria

Age between 9 to 14 years old with overweight or obesity (BMI above 85th percentile) Having a smart phone Interested in losing weight

Intervention groups

The intervention group will receive a variety of information on daily diet, physical activity and proper eating behaviors through the mobile app, the control group will receive the same information through paper and brochures, and the Third control group will receive no information.

Main outcome variables

Weight Loss Increased physical activity Creating positive nutritional behaviors

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20120913010826N32**

Registration date: **2021-03-23, 1400/01/03**

Registration timing: **retrospective**

Last update: **2021-03-23, 1400/01/03**

Update count: **0**

Registration date

2021-03-23, 1400/01/03

Registrant information

Name

Azadeh Nadjarzadeh

Name of organization / entity

Shahid Sadoughi University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 912 202 2817

Email address

azadnajarzadeh@ssu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-02-13, 1399/11/25

Expected recruitment end date

2021-03-10, 1399/12/20

Actual recruitment start date

empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Effect of nutrition education through mobile application on nutritional behaviors and anthropometric parameters in overweight and obese adolescents

Public title
Effect of nutrition education through mobile application on nutritional behaviors and anthropometric parameters in overweight and obese adolescents

Purpose
Health service research

Inclusion/Exclusion criteria
Inclusion criteria:
Adolescents 9 to 14 years old with overweight or obesity (BMI above 85th percentile) Having a smart phone Interested in losing weight
Exclusion criteria:
Diseases such as diabetes, high blood pressure and Movement disorders

Age
From **9 years** old to **14 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **72**

Randomization (investigator's opinion)
Randomized

Randomization description
Sampling will be done using cluster randomization method. At first, the list of all schools in the 6 districts of Isfahan is prepared and each school is assigned a specific code. A girls 'school and a boys' school are then randomly selected from each district (a total of twelve schools from six districts are randomly selected). All schools have a list of overweight and obese students. Six eligible students are randomly selected from each school (a total of 72 students are selected from the six districts). Then, using a table of random numbers, the selected people in each school are divided into three equal groups. The names of each group (control and intervention groups) are also redefined with random numbers

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Shahid Sadoughi University of Medical Sciences

Street address

Campus of Sadoughi University of Medical Sciences, Shohadaye Gomnam Blv, Yazd

City

Yazd

Province

Yazd

Postal code

8915173160

Approval date

2020-06-29, 1399/04/09

Ethics committee reference number

IR.SSU.SPH.REC.1399.075

Health conditions studied

1

Description of health condition studied

Obesity

ICD-10 code

E66.9

ICD-10 code description

Obesity, unspecified

2

Description of health condition studied

Overweight

ICD-10 code

E66.3

ICD-10 code description

Overweight

Primary outcomes

1

Description

Weight measurement

Timepoint

Start of study and monthly for 4 months

Method of measurement

It will be measured using standard scales and people in light clothing

2

Description

Height measurement

Timepoint

Start of study and monthly for 4 months

Method of measurement

Meter will be non-stretch and standard and people with light clothing

3**Description**

Waist measurement

Timepoint

Start of study and monthly for 4 months

Method of measurement

Non-stretch and standard meters and people with light clothing will be measured standing up

Secondary outcomes

empty

Intervention groups**1****Description**

Intervention group: Individuals in the intervention group receive a mobile app for 16 weeks that includes daily diet, physical activity, and recommendations for changing eating behavior, and measures anthropometric indices such as height, weight, waist circumference, BMI, and BMIZ each month.

Category

Lifestyle

2**Description**

Control group: People in this group receive a diet printed on paper and brochures for sixteen weeks that contain daily diet, physical activity and recommendations for changing eating behavior, and anthropometric indicators such as height, weight, waist circumference each month. , BMI and BMIZ are measured

Category

Lifestyle

3**Description**

People in this group do not receive any information and anthropometric indicators such as height, weight, waist, BMI and BMIZ are measured every month

Category

Other

Recruitment centers**1****Recruitment center****Name of recruitment center**

Dastgerd Health Center

Full name of responsible person

Mahdi Mohammadian-jazi

Street address

Dastgerd Health Center Ghaemieh Street

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Esfahan

Province

Isfahan

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8177916841

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Yazd University of Medical Sciences

Full name of responsible person

Dr Azadeh Najarzadeh

Street address

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azadehnajarzadeh@gmail.com

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Yazd University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

Academic

Person responsible for general inquiries**Contact****Name of organization / entity**

Yazd University of Medical Sciences

Full name of responsible person

Mahdi Mohammadian-Jazi

Position

MSc of Nutrition

Latest degree

Master

Other areas of specialty/work

Nutrition

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MSc of Nutrition

Latest degree

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Person responsible for scientific inquiries

Contact**Name of organization / entity**

Yazd University of Medical Sciences

Full name of responsible person

Azadeh Naharzadeh

Position

PhD in Nutrition

Latest degree

Ph.D.

Other areas of specialty/work

Nutrition

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Person responsible for updating data

Contact**Name of organization / entity**

Yazd University of Medical Sciences

Full name of responsible person

Mahdi Mohammadian-Jazi

Position

Sharing plan

Deidentified Individual Participant Data Set (IPD)

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Not applicable

Title and more details about the data/document

Data report will be shared after publishing the paper

When the data will become available and for how long

Six month after publish

To whom data/document is available

Academic researchers

Under which criteria data/document could be used

Using for Meta-analysis

From where data/document is obtainable

Nutrition Center, School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd. Tel: 009803538209100 Email: azadehnajrzadeh@gmail.com

What processes are involved for a request to access data/document

It will be sent two weeks after the receipt of the email with the consent of the co-workers

Comments