Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

Investigating the Effect of Web-Based Education on Weight Loss in Overweight and Obese Adolescents Using Planned Behavior Theory

Protocol summary

Study aim
Investigating the Effect of Web-Based Education on weight Loss in Overweight and Obese Adolescents Based on the Theory of Planned Behavior

Design
Randomized, controlled, parallel-group, open-label clinical trial on 182 adolescents (91 in each group) without blinding

Settings and conduct
Eligible adolescents in Tonekabon city are identified through the (SIB) system and after obtaining informed consent, a pre-test and initial measurement of body mass index (with a calibrated scale by a single person) is performed. Then, individuals are randomly assigned to two groups. The intervention group receives educational videos via the web. Three months after the intervention, a post-test and re-measurement of body mass index is performed for both groups.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Overweight and obese adolescents aged 13 to 19 years, and adolescents with access to mobile phones and the Internet. Exclusion criteria: Normal weight adolescents and those who do not wish to participate in the study.

Intervention groups
Intervention group: Received 6 20-minute training sessions via the web (videos recorded by the researcher) with the following titles: Introduction and positive attitude towards weight loss, mental norms and social support, perceived behavioral control and goal setting. Healthy eating and meal management, physical activity and craving management, self-monitoring, feedback and sustained motivation. Control group: Received the usual training provided by health care providers in comprehensive health centers.

Main outcome variables
Body Mass Index (BMI); Attitude toward the behavior; Subjective norms; Perceived behavioral control; Behavioral intention; Behavior (performance); Knowledge

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20230112057116N5**
Registration date: **2026-06-30, 1405/04/09**
Registration timing: **prospective**

Last update: **2026-06-30, 1405/04/09**
Update count: **0**

Registration date
2026-06-30, 1405/04/09

Registrant information

Name
Peigham Heidarpoor

Name of organization / entity

Country
Iran (Islamic Republic of)

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+98 21 2207 4156

Email address
pheidarpoormd@sbmu.ac.ir

Recruitment status
recruiting

Funding source

Expected recruitment start date
2026-08-23, 1405/06/01

Expected recruitment end date
2026-11-22, 1405/09/01

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title

Investigating the Effect of Web-Based Education on Weight Loss in Overweight and Obese Adolescents Using Planned Behavior Theory

Public title
The Effect of Web-Based Education on weight Loss in Adolescents"
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria:
People who have access to the internet and mobile phones." "Overweight and obese Adolescents
Exclusion criteria:
Adolescents with normal weight
Age
From **13 years** old to **18 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **182**
Randomization (investigator's opinion)
Randomized
Randomization description
This study is an open-label randomized controlled trial; therefore, participants and researchers will be aware of the assigned intervention type. However, to maintain allocation concealment, a stratified block randomization method with Sequentially Numbered, Opaque, Sealed Envelopes (SNOSE) will be used. The study strata include four subgroups: 1) obese girls, 2) overweight girls, 3) obese boys, and 4) overweight boys. Within each stratum, participants will be allocated to intervention groups A and B in a 1:1 ratio. The block size is fixed at 4, such that in each block, 2 participants are assigned to one group and 2 to the other group. Random sequences will be generated separately for each stratum using SAS software version 9.4. These sequences will then be recorded on cards, and each card will be placed inside an opaque envelope. The envelopes will be prepared in advance, completely opaque, sealed, and non-transparent from the outside, with only the sequence number written on the outer surface. After placing the card inside, the envelope flaps will be glued and sealed to prevent any view of the contents. The envelopes will be kept in a box based on sequential numbering. Upon enrollment of each eligible participant, the envelope corresponding to the order of entry will be opened, and the allocated group will be revealed. In this way, prediction or manipulation of the allocation process will not be possible.
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 Beheshti University of Medical Sciences
Street address
Toraj Alley, Valiasr Street,
City
Tehran
Province
Tehran
Postal code
1985717443
Approval date
2026-04-22, 1405/02/02
Ethics committee reference number
IR.SBMU.SME.REC.1405.001

Health conditions studied

1

Description of health condition studied
Obesity
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Mean change in Body Mass Index (BMI)
Timepoint
Before and three months after the educational intervention.
Method of measurement
Weight (calibrated scale, 0.1 kg precision) and height (stadiometer, 0.1 cm precision) are measured by a single trained assessor. BMI is calculated as weight (kg) divided by height squared (m^2). Measurements are taken at baseline and 3 months post-intervention.

Secondary outcomes

1

Description
Mean change in knowledge
Timepoint
Before and three months after the intervention
Method of measurement

Mazloumi & Navabi questionnaire (based on the Theory of Planned Behavior

2

Description
Mean change in attitude
Timepoint
Before and three months after the intervention
Method of measurement
Mazloumi & Navabi questionnaire (based on the Theory of Planned Behavior

3

Description
Mean change in subjective norms
Timepoint
Before and three months after the intervention
Method of measurement
Mazloumi & Navabi questionnaire (based on the Theory of Planned Behavior

4

Description
Mean change in perceived behavioral control
Timepoint
Before and three months after the intervention
Method of measurement
Mazloumi & Navabi questionnaire (based on the Theory of Planned Behavior

5

Description
Mean change in behavioral intention
Timepoint
Before and three months after the intervention
Method of measurement
Mazloumi & Navabi questionnaire (based on the Theory of Planned Behavior

6

Description
Mean change in behavior (performance)
Timepoint
Before and three months after the intervention
Method of measurement
Mazloumi & Navabi questionnaire (based on the Theory of Planned Behavior

Intervention groups

1

Description
Intervention group: Receives 6 sessions of 20-minute web-based education (pre-recorded videos by the researcher) with the following titles:Introduction and positive attitude toward weight lossSubjective norms and social supportPerceived behavioral control and goal settingHealthy nutrition and meal managementPhysical activity and craving managementSelf-monitoring, feedback, and sustained motivation
Category
Lifestyle

2

Description
Control group: Receives routine education provided by healthcare providers at comprehensive health centers.
Category
Lifestyle

Recruitment centers

1

Recruitment center
Name of recruitment center
Tonekabon Health center
Full name of responsible person
Peigham Heidarpoor
Street address
Between Shahid Bakhshi and Mojtahedzad Streets, Allameh Tonekaboni Street, Imam Khomeini Street
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peigham.heidarpoor@yahoo.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Shahid Beheshti University of Medical Sciences
Full name of responsible person
Afshin Zarghi
Street address
7th Floor, Daneshjoo Blvd, Velenjak.
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1985747443
Phone
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intl_office@sbmu.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source
Shahid Beheshti 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
Shahid Beheshti University of Medical Sciences

Full name of responsible person
Peigham Heidarpoor

Position
Associate Professor

Latest degree
Specialist

Other areas of specialty/work
Preventive and Community Medicine

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD
Individual participant data will not be shared publicly to protect confidentiality and ethical standards.

Study Protocol
No - There is not a plan to make this available

Statistical Analysis Plan
No - There is not a plan to make this available

Informed Consent Form
No - There is not a plan to make this available

Clinical Study Report
No - There is not a plan to make this available

Analytic Code
No - There is not a plan to make this available

Data Dictionary
No - There is not a plan to make this available