

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

A Comparative Study of the Impact of Social Cognitive Theory-Based Educational Interventions Using Multimedia and AI Chatbot on Physical Activity in Overweight or Obese Male Secondary School Students

Protocol summary

Study aim

Comparing the Impact of Social Cognitive Theory-Based Educational Interventions Using Multimedia and AI Chatbot on Physical Activity in Overweight or Obese Male Secondary School Students in Bushehr City.

Design

A randomized, clinical trial with control group, parallel groups on 180 students. Excel software will be used for randomization.

Settings and conduct

This study will compare the effect of educational intervention using multimedia and AI chatbot on the physical activity behavior in overweight or obese male students in selected Secondary School in Bushehr City.

Participants/Inclusion and exclusion criteria

Study inclusion criteria: 1- Body mass index of 25 or higher 2- Willingness to participate in the study 3- Access to internet and electronic devices Study exclusion criteria: 4- Having physical activity disincentive issues 5- Failure to complete study questionnaires 6- Participation in professional sports classes

Intervention groups

Intervention group (1) : In this group, students will receive multimedia educational content based on social cognitive theory in 7 chapters. Intervention group (2) : In this group, the educational intervention will be implemented through a dedicated AI chatbot. Control group: This group will not receive any intervention.

Main outcome variables

Physical activity behavior; Body mass index; Perceived self-efficacy; Social support; Outcome expectations; Self-regulation.

General information

Reason for update

The reported value for the achieved sample size was

entered incorrectly.

Acronym

IRCT registration information

IRCT registration number: **IRCT20250417065366N1**

Registration date: **2025-05-08, 1404/02/18**

Registration timing: **retrospective**

Last update: **2025-07-09, 1404/04/18**

Update count: **1**

Registration date

2025-05-08, 1404/02/18

Registrant information

Name

Mahan Razeghipour

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 77 3354 1526

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mahan9877@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-09-22, 1403/07/01

Expected recruitment end date

2024-10-21, 1403/07/30

Actual recruitment start date

2024-09-22, 1403/07/01

Actual recruitment end date

2024-10-21, 1403/07/30

Trial completion date

2025-01-22, 1403/11/03

Scientific title

A Comparative Study of the Impact of Social Cognitive Theory-Based Educational Interventions Using Multimedia and AI Chatbot on Physical Activity in Overweight or Obese Male Secondary School Students

Public title

Physical Activity Educational Program in Overweight or Obese Male Students

Purpose

Prevention

Inclusion/Exclusion criteria**Inclusion criteria:**

Willingness to participate in the study Having a body mass index of 25 or higher Access to internet Access to electronic devices such as a computer, laptop or smartphone

Exclusion criteria:

Failure to complete study questionnaires Having Physical activity disincentive issues Participation in professional sports classes

Age

From **13 years** old to **15 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **180**

Actual sample size reached: **150**

Randomization (investigator's opinion)

N/A

Randomization description**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 Bushehr University of Medical Sciences

Street address

Bahmani St, Salman Farsi St, Bushehr University of Medical Sciences

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Bushehr

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Postal code

7518759338

Approval date

2024-03-11, 1402/12/21

Ethics committee reference number

IR.BPUMS.REC.1402.303

Health conditions studied**1****Description of health condition studied**

Physical Activity

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Physical activity Behavior

Timepoint

Before intervention, 1 and 3 months after intervention

Method of measurement

7-day physical activity questionnaire

2**Description**

Body mass index

Timepoint

Before intervention, 1 and 3 months after intervention

Method of measurement

Ratio of weight to squared height

Secondary outcomes**1****Description**

Perceived self-efficacy

Timepoint

Before intervention, 1 and 3 months after intervention

Method of measurement

Questionnaire

2**Description**

Outcome expectations

Timepoint

Before intervention, 1 and 3 months after intervention

Method of measurement

Questionnaire

3**Description**

Social support

Timepoint

Before intervention, 1 and 3 months after intervention

Method of measurement

Questionnaire

4

Description

Self-regulation

Timepoint

Before intervention, 1 and 3 months after intervention

Method of measurement

Questionnaire

Intervention groups

1

Description

Intervention group (1) : In this group, students received multimedia educational content based on social cognitive theory in 7 chapters.

Category

Behavior

2

Description

Intervention group (2) : In this group, the educational intervention was implemented through a dedicated AI chatbot.

Category

Behavior

3

Description

Control group: This group will not receive any intervention.

Category

Behavior

Recruitment centers

1

Recruitment center

Name of recruitment center

Shahid Beheshti High School

Full name of responsible person

Milad Habibinia

Street address

Bahmani St, Salman Farsi St, Shahid Beheshti High School

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Recruitment center

Name of recruitment center

Shahid Mostafa Khomeini School

Full name of responsible person

Hossein Rabiei Motlagh

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Recruitment center

Name of recruitment center

Javadalaemeh High School

Full name of responsible person

Alireza Mashayekhi

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Recruitment center

Name of recruitment center

Moslehiyan High School

Full name of responsible person

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Recruitment center

Name of recruitment center

22 Bahman High School

Full name of responsible person

Safar Jafari

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khamisipoor@bpums.ac.ir

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

Yes

Title of funding source

Boushehr 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

6

Recruitment center

Name of recruitment center

Shahid Majid Boshkoh High School

Full name of responsible person

Ali Keshtkar

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Person responsible for general inquiries

Contact

Name of organization / entity

Boushehr University of Medical Sciences

Full name of responsible person

Homamodin Javadzade

Position

Associate professor

Latest degree

Ph.D.

Other areas of specialty/work

Health Promotion

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Sponsors / Funding sources

1

Sponsor

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Full name of responsible person

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Person responsible for scientific inquiries

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Position

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Person responsible for updating data**Contact****Name of organization / entity**

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Full name of responsible person

Mahan Razeghipour

Position

Masters student

Latest degree

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Other areas of specialty/work

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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

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

Clinical Study Report

Undecided - It is not yet known if there will be 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

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