Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Effect of virtual education using microlearning versus control group on quality of life and treatment adherence in patients with type 2 diabetes: a randomized clinical trial

Protocol summary

Study aim

To assess the effect of virtual education using microlearning versus control group on quality of life and treatment adherence in patients with type 2 diabetes

Design

This is a randomized clinical trial with a control group with parallel groups without blinding, in which 92 eligible patients will be randomly assigned to the intervention and control groups using block randomization.

Settings and conduct

This is a randomized clinical trial with a control group with parallel groups without blinding, in which 92 eligible patients will be randomly assigned to the intervention and control groups using block randomization.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Age of 18 to 70 years, Affected with type 2 diabetes for at least 18 months, Score of treatment adherence questionnaire less than 100, Score of quality-of-life questionnaire less than 40, Literate, Access to the internet and domestic social media, Exclusion criteria: Cognitive disorders

Intervention groups

Intervention group: Routine treatment, education and care for diabetic patients plus sending 7 audio podcasts, each audio podcast lasting four minutes, every other day for 14 days, and 14 short text messages daily for 14 days, and 14 text messages with photos, including educational tips, daily for 14 days, and 4 short video messages lasting five minutes, every other day for 14 days through one of the domestic media messages. Control group: Routine treatment, education and care for diabetic patients

Main outcome variables

Primary outcome: Treatment adherence score, Quality of life score

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20120215009014N575**
Registration date: **2025-09-14, 1404/06/23**
Registration timing: **prospective**

Last update: **2025-09-14, 1404/06/23**
Update count: **0**

Registration date

2025-09-14, 1404/06/23

Registrant information

Name

Jalal Poorolajal

Name of organization / entity

Department of Epidemiology & Biostatistics Hamadan University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 81 1838 0090

Email address

poorolajal@umsha.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2025-10-02, 1404/07/10

Expected recruitment end date

2026-02-14, 1404/11/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
Effect of virtual education using microlearning versus control group on quality of life and treatment adherence in patients with type 2 diabetes: a randomized clinical trial

Public title
Effect of virtual education using microlearning versus control group on quality of life and treatment adherence in patients with type 2 diabetes

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Age of 18 to 70 years, Affected with type 2 diabetes for at least 18 months, Score of treatment adherence questionnaire less than 100, Score of quality-of-life questionnaire less than 40, Literate, Access to the internet and domestic social media,

Exclusion criteria:
Cognitive disorders

Age
From **18 years** old to **70 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **92**

Randomization (investigator's opinion)
Randomized

Randomization description
In this study, random assignment of patients to the intervention and control groups will be carried out using block randomization. To achieve this, four sheets of paper will be prepared - two with the name of the intervention and two with the name of the control. These paper sheets will be pooled and placed in a container. Patients will be selected one at a time without replacement, and for each patient, a paper sheet will be randomly drawn from the container. After each draw, the paper sheets will be returned to the container, and the process will be repeated until the desired sample size is reached.

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 Hamadan University of Medical Sciences

Street address
Vice-chancellor for Research and Technology, Hamadan University of Medical Sciences, Fahmideh Ave

City
Hamadan

Province
Hamadan

Postal code
6517838695

Approval date
2025-08-30, 1404/06/08

Ethics committee reference number
IR.UMSHA.REC.1404.405

Health conditions studied

1

Description of health condition studied
Type 2 diabetes mellitus

ICD-10 code
E08

ICD-10 code description
Diabetes mellitus due to underlying condition

Primary outcomes

1

Description
Treatment adherence score

Timepoint
Before intervention and one and three months after the end of the intervention

Method of measurement
Using the Treatment Adherence Questionnaire

2

Description
Quality of life score

Timepoint
Before intervention and one and three months after the end of the intervention

Method of measurement
Using the Quality-of-Life Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Routine treatment, education and care for diabetic patients plus sending 7 audio podcasts, each audio podcast lasting four minutes, every other day for 14 days (on how to prevent diabetic foot ulcers and how to care for these ulcers), and 14 short text messages daily for 14 days (on diet and appropriate activities), and 14 text messages with photos, including educational tips, daily for 14 days (on how to take medications and their possible side effects), and 4 short video messages lasting five minutes (including short clips with specific concepts related to diabetes), every other day for 14 days through one of the domestic media messages.

Category
Other

2

Description
Control group: Routine treatment, education and care for diabetic patients

Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Mahdieh Diabetes Center in Hamadan city

Full name of responsible person
Ehsan Kianijoo

Street address
School of Nursing and Midwifery, Hamadan University of Medical Sciences, Fahmideh Ave.

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Hamedan University of Medical Sciences

Full name of responsible person
Dr. Alireza Soltanian

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?
Yes

Title of funding source
Hamedan 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
Hamedan University of Medical Sciences

Full name of responsible person
Ehsan Kianijoo

Position
Nursing Student

Latest degree
Master

Other areas of specialty/work
Nursery

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Person responsible for scientific inquiries

Contact

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Person responsible for updating data

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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