

Personalized SMS messaging for improved diabetes self-care and glycemic control in southwestern Iran

Submission date 19/02/2026	Recruitment status No longer recruiting	☐ Prospectively registered
		☐ Protocol
Registration date 20/02/2026	Overall study status Completed	☐ Statistical analysis plan
		☐ Results
Last Edited 20/02/2026	Condition category Nutritional, Metabolic, Endocrine	☐ Individual participant data
		☒ Record updated in last year

Plain English summary of protocol

Background and study aims

This study aims to evaluate the effectiveness of a personalized SMS intervention in improving self-care behaviors and glycemic (blood sugar) control in adults with Type 1 and Type 2 diabetes in southwestern Iran.

Who can participate?

Adults aged 18 years and above with Type 1 or Type 2 diabetes, HbA1c $\geq 6.5\%$, and the ability to read and write in Persian or Arabic (or participate via interview for those with low literacy).

What does the study involve?

Participants will receive personalized SMS messages tailored to their specific self-care needs, including diet, physical activity, and medication adherence.

What are the possible benefits and risks?

Potential benefits include improved self-care and glycemic control. Risks include concerns about the privacy of health data shared via SMS.

Where is the study run from?

Abadan University of Medical Sciences (Iran)

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

March 2023 to September 2025

Who is funding the study?

Abadan University of Medical Sciences (Iran)

Who is the main contact?

Dr Zahra Gorjian, z.gorjian@abadanums.ac.ir

Contact information

Type(s)

Principal investigator, Scientific, Public

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Additional identifiers**Study information****Scientific Title**

Evaluation of a personalized SMS intervention for improving self-care adherence and glycemic control in adults with type 1 and type 2 diabetes in southwestern Iran: a prospective study

Acronym

SMS-Diabetes

Study objectives

To evaluate the effectiveness of a personalized SMS intervention in improving self-care behaviors and glycemic control among adults with type 1 and type 2 diabetes in southwestern Iran.

Ethics approval required

Ethics approval required

Ethics approval(s)

Approved 20/09/2022, Clinical Ethics Committee of Abadan University of Medical Sciences (Abadan University of Medical Sciences, Abadan, 63167, Iran; +98 (0)6153384021; info@abadanums.ac.ir), ref: IR.ABADANUMS.REC.1394.15

Primary study design

Interventional

Allocation

N/A: single arm study

Masking

Open (masking not used)

Control

Uncontrolled

Assignment

Single

Purpose

Health services research, Treatment

Study type(s)

Health condition(s) or problem(s) studied

Type 1 and type 2 diabetes mellitus

Interventions

A 6-month personalized SMS intervention, delivering 1-3 weekly messages tailored to the individual's weaknesses in self-care behaviors (such as diet, physical activity, blood glucose monitoring, foot care, and medication adherence).

Intervention Type

Behavioural

Primary outcome(s)

1. Glycemic control: HbA1c levels measured using high-performance liquid chromatography (HPLC) at baseline and 6 months follow-up

Key secondary outcome(s)

1. Self-care adherence measured using Summary of Diabetes Self-Care Activities (SDSCA) scores at baseline and 6 months follow-up

2. Quality of life related to diabetes measured using diabetes-specific quality of life instrument at baseline and 6 months follow-up

Completion date

19/09/2025

Eligibility

Key inclusion criteria

1. Adults aged ≥ 18 years
2. Type 1 or type 2 diabetes
3. HbA1c $\geq 6.5\%$
4. Able to read and write in Persian or Arabic (or participate via interview for those with low literacy)
5. Access to a mobile phone for receiving SMS messages
6. Written informed consent

Healthy volunteers allowed

No

Age group

Mixed

Lower age limit

18 Years

Upper age limit

100 Years

Sex

All

Total final enrolment

1100

Key exclusion criteria

1. Secondary diabetes
2. Gestational diabetes
3. Rare diabetes subtypes
4. Stage 5 kidney failure (eGFR <15 ml/min/1.73 m²)
5. Uncontrolled psychiatric disorders (e.g., schizophrenia or severe depression)
6. Voluntary withdrawal
7. Death
8. Failure to complete ≥85% of questionnaires at baseline
9. Inability or unwillingness to receive SMS messages or attend follow-up visits

Date of first enrolment

21/03/2023

Date of final enrolment

19/09/2025

Locations

Countries of recruitment

Iran

Sponsor information

Organisation

Abadan University of Medical Sciences

ROR

<https://ror.org/033z8fr92>

Funder(s)

Funder type

Funder Name

Abadan University of Medical Sciences

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not expected to be made available