Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

Studying the effect of using a mobile phone-based medication reminder program and sending educational SMS on medication adherence and quality of life of patients with Acute coronary syndrome discharge

Protocol summary

Study aim

Determining the Effect of a Mobile Phone–Based Medication Reminder Application and Educational Text Messaging on Medication Adherence and Quality of Life in Patients with Acute Coronary Syndrome

Design

 This randomized, single-blind, controlled clinical trial with parallel groups included 66 patients(33 in each group) with multiple sclerosis, randomly selected using Random Number Generator software and assigned to intervention and control groups via Random Allocation Software.

Settings and conduct

After Ethics Committee approval and IRCT registration, patients will be randomly assigned to intervention and control groups, and informed consent will be obtained. Questionnaires will be completed before and after the intervention, which is based on the nursing process and includes education on medication, nutrition, physical activity, myocardial infarction, and stress management.

Participants/Inclusion and exclusion criteria

Definite diagnosis of acute coronary syndrome Absence of major psychological disorders such as major depression, psychosis, etc. Ability to use a mobile phone and possession of a personal smartphone Ability to perform self-care, especially in taking prescribed medications Age between 35 and 65 years No hearing, visual, or other physical or sensory impairments No addiction to narcotics, alcohol, or psychotropic substances

Intervention groups

For patients in the intervention group, in addition to the routine education, the “DaruYad” application will be installed on their mobile phones. The researcher will install the application for each patient and enter the required information, including prescribed medications, into the program. Moreover, patients will receive short reminder text messages for one month after discharge. The control group will receive only the routine ward education provided before discharge

Main outcome variables

medication adherence and quality of life

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20251101067838N1**
Registration date: **2025-11-26, 1404/09/05**
Registration timing: **registered_while_recruiting**

Last update: **2025-11-26, 1404/09/05**
Update count: **0**

Registration date

2025-11-26, 1404/09/05

Registrant information

Name

Fatemeh Fakharzadeh jahromi

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 71 5433 2908

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f.fakharzadeh@jums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2025-11-22, 1404/09/01

Expected recruitment end date

2026-02-19, 1404/11/30

Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Studying the effect of using a mobile phone-based medication reminder program and sending educational SMS on medication adherence and quality of life of patients with Acute coronary syndrome discharge

Public title
Studying the effect of using a mobile phone-based medication reminder program and sending educational SMS on medication adherence and quality of life of patients with Acute coronary syndrome After discharge
Purpose
Education/Guidance
Inclusion/Exclusion criteria
Inclusion criteria:
Definite diagnosis of acute coronary syndrome for the first time, confirmed by a cardiologist. No major psychological disorders such as major depression, psychosis, etc. Willingness of the patient to participate in the research. Ability to read and write Ability to use a mobile phone and possession of a personal smartphone capable of installing the medication reminder application used in the present study. Ability to perform self-care activities, especially adherence to prescribed medications. Age between 35 and 65 years No hearing, vision, or other physical and sensory disabilities. No addiction to drugs, alcohol, or psychoactive substances. No memory-related disorders or dementia. No participation in other educational programs or self-care intervention studies. Patient's acknowledgment of having adequate financial means or family/social support to obtain prescribed medications during the study period.
Exclusion criteria:
Recurrence of acute and severe symptoms of the disease or acute complications of coronary syndrome (such as dysrhythmias and various types of heart blocks) requiring rehospitalization in intensive care units. Development of cognitive or psychological disorders during the study. Patient's unwillingness to continue participation in the study. Death of the patient. Occurrence of acute events or crises affecting medication adherence and the patient's quality of life, such as severe trauma, death of first-degree relatives, and similar situations.
Age
From **35 years** old to **65 years** old
Gender
Both

Phase
3
Groups that have been masked

- Participant

Sample size
Target sample size: **66**

Randomization (investigator's opinion)
Randomized
Randomization description
In the present study, patients with acute coronary syndrome hospitalized in the cardiology wards of Peymanieh and Seyed Al-Shohada (AS) Hospitals affiliated with Jahrom University of Medical Sciences will be recruited using a convenience sampling method. Patients will be randomly assigned to the intervention group (33 participants) and the control group (33 participants) using the Random Allocation Software. The allocation of each patient will be done individually based on the randomization flowchart generated by the software.
Blinding (investigator's opinion)
Single blinded
Blinding description
The study was single-blinded, meaning that the data collector (research assistant) was unaware of the participants' group allocation (intervention or control) at each stage.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of Jahrom University of Medical Sciences
Street address
Deputy for Research and Technology،Administrative (Campus) Building,Jahrom University of Medical Sciences,End of Shahid Motahari Street,Jahrom, Fars Province, Iran
City
jahrom
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Postal code
7414846199
Approval date
2025-10-20, 1404/07/28
Ethics committee reference number
IR.JUMS.REC.1404.099

Health conditions studied

1

Description of health condition studied
Acute coronary syndrome
ICD-10 code

125.9

ICD-10 code description

Acute coronary

Primary outcomes

1

Description

Medication adherence

Timepoint

Before, immediately after the intervention, and two months after the intervention

Method of measurement

Morisky Medication Adherence Questionnaire

Secondary outcomes

1

Description

quality of life

Timepoint

Before, immediately after the intervention, and two months after the intervention

Method of measurement

MacNew Heart Disease Health-related Quality of Life Questionnaire

Intervention groups

1

Description

Intervention Group: For patients in the intervention group, in addition to the routine training provided to all patients before discharge, the DaruYad medication-reminder application will be installed on their mobile phones. The DaruYad application was designed by the Biomedical Engineering Department, Faculty of Medical Sciences and Technologies, Science and Research Branch, Islamic Azad University.The various components of the DaruYad software include: the login section, the current medications section, access for the pharmaceutical representative to the patient's dedicated page, searching the prescribed medication, selecting the medication from the available pharmaceutical company database, and determining the administration instructions for the selected drug.Within the application, the medication dose, dosing interval (every few hours), registration of the first administration time (hour and minute), start date (year, month, and day), dosage form (for example, if the medication is a tablet and half a tablet must be taken), the patient's medication quota, an audio alarm, and a clear image of the medication's appearance and specifications are displayed.In addition, patients will receive short reminder text messages for one month after discharge.

Category

Behavior

2

Description

Control group: The control group will receive only the routine pre-discharge education provided in the ward, which includes recognizing warning signs, contacting emergency services immediately in case of symptom onset, rest and limitation of physical activity, indications for using nitroglycerin tablets and instructions for their administration, stress management, and appropriate dietary recommendations.

Category

Behavior

Recruitment centers

1

Recruitment center

Name of recruitment center

Cardiac Care Unit (CCU), Peymanieh Educational Hospital

Full name of responsible person

Fatemeh Fakharzadeh Jahromi

Street address

Peymanieh Hospital, Valiasr Street, Jahrom

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2

Recruitment center

Name of recruitment center

Seyed Al-Shohada Hospital, Jahrom

Full name of responsible person

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
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Full name of responsible person
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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
Jahrom 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
Jahrom University of Medical Sciences

Full name of responsible person
Fatemeh Fakharzadeh jahromi

Position
Master of student in nursing

Latest degree
Bachelor

Other areas of specialty/work
Nursery

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Assistant Professor

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Nursery

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Person responsible for updating data

Contact

Name of organization / entity
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Full name of responsible person
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Position
Master of student in nursing

Latest degree
Bachelor

Other areas of specialty/work
Nursery

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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