Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

The effect of education using the interactive Avatar application on self-care, and the ability to identify and respond to the symptoms of heart attack in patients with acute coronary syndrome

Protocol summary

Study aim
Determining the effect of training using an interactive avatar application on self-care, and the ability to identify and respond to heart attack symptoms in patients with acute coronary syndrome.

Design
Clinical trial with intervention and control group, with parallel groups, without blinding, randomized, phase 3 on 70 patients, randomized time block method.

Settings and conduct
This study will be done in three stages: In the first stage, the content of the application will be collected and validated. In the second stage, the interactive avatar application will be designed and validated. The third phase of this study will include conducting a clinical trial in the CCU department of Imam Reza (a.s.) and Qaim (a.s.) hospitals in Mashhad.

Participants/Inclusion and exclusion criteria
1. Consent to participate in the study. 2. He has been hospitalized with acute coronary syndrome 3. Have stable clinical conditions 4. Be over 18 years old 5. To be fluent in Persian language to communicate and follow up the study. 6. The patient himself or his companion should have an Android mobile phone.

Intervention groups
The researcher will implement the intervention by giving a comprehensive explanation to the patients and obtaining an informed consent form from them. During the hospitalization of the patient, the interactive avatar application will be installed by the researcher on the patient's mobile phone (or the mobile phone of one of the patient's companions) and how to use the application will be taught to the patient by the researcher. Face and training will be applied using pamphlets. In both groups, the questionnaires will be completed before the intervention (in person) and one and three months after discharge (by phone and online).

Main outcome variables
Self -Care of coronary Heart Disease Inventory(SC-CHDI)
ACS Response Index Heart Attack Response questioner

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20220920056001N1**
Registration date: **2023-01-03, 1401/10/13**
Registration timing: **prospective**

Last update: **2023-01-03, 1401/10/13**
Update count: **0**

Registration date
2023-01-03, 1401/10/13

Registrant information

Name
Nahid Keivanlou shahrestanaky

Name of organization / entity

Country
Iran (Islamic Republic of)

Phone
+98 51 3859 1511

Email address
keivanlousn992@mums.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-01-21, 1401/11/01

Expected recruitment end date
2023-07-23, 1402/05/01

Actual recruitment start date
empty

Actual recruitment end date
empty
Trial completion date
empty

Scientific title
The effect of education using the interactive Avatar application on self-care, and the ability to identify and respond to the symptoms of heart attack in patients with acute coronary syndrome

Public title
The effect of education using the interactive Avatar application on self-care, and the ability to identify and respond to the symptoms of heart attack in patients with acute coronary syndrome
Purpose
Education/Guidance
Inclusion/Exclusion criteria
Inclusion criteria:
Consent to participate in the study Be hospitalized with the diagnosis of acute coronary syndrome Have a stable clinical condition Be over 18 years old To be fluent in Persian language to communicate and follow up the study The patient himself or his companion should have an Android mobile phone
Exclusion criteria:
Having cognitive impairment Having a hearing problem
Age
From **18 years** old
Gender
Both

Phase
3
Groups that have been masked
No information
Sample size
Target sample size: **70**
Randomization (investigator's opinion)
Randomized
Randomization description
The method of randomization is time block method. In this way, in order to prevent the dissemination of information, sampling in the intervention and control groups will be done in the middle of the week. In this way, the first group will be randomly selected by lottery, then the patients who meet the criteria for entering the study will be included in the intervention or control group in the middle of the week.
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 Factulty of Nursing and Midwifery- Mashhad University of Medical Sciences
Street address
Qureshi building,Near Hovaze Cinema , Daneshgah street
City
Mashhad
Province
Razavi Khorasan
Postal code
91388-13944
Approval date
2022-09-18, 1401/06/27
Ethics committee reference number
IR.MUMS.NURSE.REC.1401.062

Health conditions studied

1

Description of health condition studied
Unstable angina
ICD-10 code
120.0
ICD-10 code description
Unstable angina Angina:• crescendo• de novo effort• worsening effortIntermediate coronary syndromePre infarction syndrome

2

Description of health condition studied
Acute myocardial infarction
ICD-10 code
121
ICD-10 code description
Acute myocardial infarction: myocardial infarction specified as acute or with a stated duration of 4 weeks (28 days) or less from onset

Primary outcomes

1

Description
Self-care score in self care coronary heart disease inventory
Timepoint
Self-care measurement at the beginning of the previous study (before the start of the intervention) and one month and three months after discharge from the hospital
Method of measurement
Self care of coronary heart disease inventory

2

Description
Identify the symptoms of a heart attack.
Timepoint
Measuring the ability to identify heart attack symptoms at the beginning of the previous study (before the start of the intervention) and one month and three months after discharge from the hospital.
Method of measurement
Acute coronary syndrome response index

3

Description
Response to heart attack symptoms
Timepoint
Measuring the response of heart attack symptoms at the beginning of the previous study (before the start of the intervention) and one month and three months after discharge from the hospital.
Method of measurement
Heart attack response questioner

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: installing the interactive avatar application on the mobile phone of the patient or one of their companions and teaching the patient how to use the application by the researcher to track the patients' use of the application during the follow-up period, the researcher will contact the research participants twice a week and in addition It will also answer their questions on reminding them to use the application.
Category
Other

2

Description
Control group: in the control group, the usual care that includes face-to-face training and training using pamphlets will be applied.
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Imam Reza Hospital (AS)
Full name of responsible person
Nayyereh Davoudi Hasanabad
Street address
Imam Reza (AS) Educational Research and Treatment Center, Imam Reza (AS) Hospital Square, Ibn Sina Street
City
Mashhad
Province
Razavi Khorasan
Postal code
9137913316
Phone
+98 51 3854 3031
Email
DavoudiN@mums.ac.ir

2

Recruitment center
Name of recruitment center
Ghaem Hospital (AJ).
Full name of responsible person
Nayyereh Davoudi Hasanabad
Street address
Ghaem Hospital (AJ), Ahmedabad St
City
Mashhad
Province
Razavi Khorasan
Postal code
9919991766
Phone
+98 51 3840 0001
Email
DavoudiN@mums.ac.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Majid Ghayour Mobarhan
Street address
Research assistant,Qureshi building, Daneshgah street
City
Mashhad
Province
Razavi Khorasan
Postal code
9138813944
Phone
+98 51 3841 1538
Fax
Email
ghayourm@mums.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes

Title of funding source
Mashhad 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
Mashhad University of Medical Sciences
Full name of responsible person
Nahid Keivanlou
Position
Msc student in medical surgical nursing
Latest degree
Bachelor
Other areas of specialty/work
Nursery
Street address
School of Nursing and Midwifery, Ibn Sina St, Doctoral four ways,
City
Mashhad
Province
Razavi Khorasan
Postal code
9137913199
Phone
+98 51 3859 1511
Email
Keivanlousn992@mums.ac.ir

Person responsible for scientific inquiries

Contact
Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Nayyereh Davoudi Hasabad
Position
Assistant Professor
Latest degree
Ph.D.
Other areas of specialty/work
Nursery
Street address
School of Nursing and Midwifery, Ibn Sina St, Doctoral four ways
City
Mashhad
Province
Razavi Khorasan
Postal code
9137913199
Phone
+98 51 3859 1511
Email
DavoudiN@mums.ac.ir

Person responsible for updating data

Contact
Name of organization / entity
Mashhad University of Medical Sciences
Full name of responsible person
Nahid keivanlou
Position
Msc student in medical surgical nursing
Latest degree
Bachelor
Other areas of specialty/work
Nursery
Street address
School of Nursing and Midwifery, Ibn Sina St, Doctoral four ways,
City
Mashhad
Province
Razavi Khorasan
Postal code
9137913199
Phone
+98 51 3859 1511
Email
Keivanlousn992@mums.ac.ir

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
It has no plans to publish
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