Clinical Trial Protocol
Iranian Registry of Clinical Trials

05 Jul 2026

Comparison of the effect of two types of interactive and non-interactive short message service on adherence to treatment in patients with hypertension

Protocol summary

Study aim
Determination of the effect of two types of short message service (interactive and non-interactive) on adherence to treatment in patients with hypertension

Design
A single blinded, randomized, controlled clinical trial with a parallel group

Settings and conduct
The present study was conducted on patients referred to AJA 502 hospital in Tehran, Iran for a period of four months in 2019. 63 patients were selected by purposive sampling method and then were randomly allocated to three groups of 21 patients Interactive Short Message Service (ISMS), Non-interactive Short Message Service (N-ISMS) and control. Questionnaires were completed for their patients and their blood pressure was measured in the first week of each month and in three separate days for all three groups. Four educational messages about adherence to the treatment of hypertension were sent to the ISMS and N-ISMS groups every week for a period of four months, a total of 64 messages. Additionally, in the ISMS group, patients without a time limit and within 24 hours, had two-way communication by asking their questions to the researcher. Questionnaires were completed again by the researcher four months after the beginning of the study.

Participants/Inclusion and exclusion criteria
The inclusion criteria: a clinical diagnosis of hypertension, aged 35-64 years, own or have daily access to a cellphone, lack of other diseases requires taking drugs other than anti-hypertensive drugs, not having a history of known heart disease, such as myocardial infarction, and willing to give informed consent to participate in the study. The exclusion criteria: unwillingness to participate further

Intervention groups
The intervention group 1 received interactive SMS, intervention group 2 non-interactive SMS intervention and control groups received a training booklet.

Main outcome variables
Adherence to treatment, Blood presssure

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20190120042423N1**
Registration date: **2019-04-26, 1398/02/06**
Registration timing: **retrospective**

Last update: **2019-04-26, 1398/02/06**
Update count: **0**

Registration date
2019-04-26, 1398/02/06

Registrant information

Name
Ehsan Rahmanipour
Name of organization / entity
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Iran (Islamic Republic of)
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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2017-11-22, 1396/09/01

Expected recruitment end date
2018-02-20, 1396/12/01

Actual recruitment start date

2017-12-06, 1396/09/15

Actual recruitment end date

2018-02-19, 1396/11/30

Trial completion date

2018-09-23, 1397/07/01

Scientific title

Comparison of the effect of two types of interactive and non-interactive short message service on adherence to treatment in patients with hypertension

Public title

The effect of two types of interactive and non-interactive short message service on adherence to treatment in patients with hypertension

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

A clinical diagnosis of hypertension and either currently receiving antihypertensive medication for at least a one month A systolic blood pressure 140-220 mmHg and a diastolic blood pressure 90-120 mmHg at enrolment. Aged 35-64 years Own or have daily access to a cellphone with able to send a SMS text-message Able to use the text messaging function (reading and composing a text message) Able to send and receive a SMS text-message Do not live in a household where another member has been recruited into the trial Currently residing in the trial area and expecting to be resident for the duration of the trial Lack of other diseases requires taking drugs other than anti-hypertensive drugs, such as diabetes Lack of use complementary therapies such as taking herbal medicines during the study Not having a history of known heart disease, such as myocardial infarction Lack of dementia, impaired short-term memory, mental and psychological problems, end-stage liver or kidney disease and cancer Willing to participate in the study

Exclusion criteria:

Patients whose regimen has changed for two months or more according to the physician's order Unwillingness to continue cooperation Pregnancy or lactation during the test for female participants

Age

From **35 years** old to **64 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Data analyser

Sample size

Target sample size: **63**

Actual sample size reached: **63**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization method: Simple randomization Randomization unit: Individual Randomization tools: Throw the dice

Blinding (investigator's opinion)

Single blinded

Blinding description

The single-blind, clinical trial: Blindness was done at the level of the statistical analyst.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee Of AJA University Of Medical Science

Street address

AJA University Of Medical Science, Etemadzade St., West Fatemi Ave.

City

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Province

Tehran

Postal code

1411718541

Approval date

2017-12-25, 1396/10/04

Ethics committee reference number

IR.AJAUMS.REC.1396.90

Health conditions studied

1

Description of health condition studied

Hypertension

ICD-10 code

I10-I15

ICD-10 code description

Hypertensive diseases

Primary outcomes

1

Description

Adherence to treatment

Timepoint

Start of study and 4 months after intervention.

Method of measurement

Treatment adherence questionnaire for patients with hypertension (TAQPH)

2

Description
Blood Pressure
Timepoint
Start of study and 1, 2, 3 and 4 months after intervention.
Method of measurement
Beurer GmbH, Söflinger Str. 218, 89077 Ulm, Germany, Type: BM16, Item No: 652.02

Secondary outcomes

empty

Intervention groups

1

Description
Interactive SMS group: For this group of patients, four training messages were sent each week for 4 months. During this period, patients had two-way communication by asking their questions to the researcher.
Category
Other

2

Description
Non-interactive SMS group: For this group of patients, four training messages were sent each week for 4 months.
Category
Other

3

Description
Control group: All patients in this group received a training package.
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
502 AJA hospital
Full name of responsible person
Dr. Behzad Moradi
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Sponsors / Funding sources

1

Sponsor
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http://www.ajaums.ac.ir/
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Artesh 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
Artesh University of Medical Sciences
Full name of responsible person
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Latest degree
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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