# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

01 Aug 2026

## A comparison of the effect of education through social networks with face-to-face teaching on adherence to treatment in patients with hypertension

## Protocol summary

**Study aim**
Comparing the effect of education through social networks with face-to-face teaching on adherence to treatment in patients with hypertension

**Design**
A clinical trial with a control group, with parallel groups, one-sided blind, randomized, will be conducted with the participation of 210 patients. A random distribution method with a block design will be used for randomization.

**Settings and conduct**
Sampling is done in the heart clinics of Ayatollah Mousavi and Valiasr hospitals in Zanjan city among patients with primary hypertension. Two intervention groups and one control group will be present in this study. Before the intervention, their demographic characteristics and treatment adherence will be checked. The patients of the experimental group who receive face-to-face training will receive face-to-face training from the researchers during four sessions in addition to receiving routine interventions. In the virtual educational group, in addition to routine interventions, the same educational information (with the face-to-face group) will be provided through the virtual facilities. The control group will only receive routine interventions. Immediately, one month, and three months after the intervention, the treatment adherence will be collected again from all three groups. In this study, the statistician will not know about the groups.

**Participants/Inclusion and exclusion criteria**
-Age above 18 years -Having a history of hypertension for at least six months, which a -cardiologist has confirmed. -Being literate in reading and writing -Not having secondary and treatment-resistant hypertension. -Absence of severe mental/psychological problem -Having the patient's smartphone and access to the Internet -Informed consent to participate in the study

**Intervention groups**
The virtual educational intervention group The face-to-face educational intervention group

**Main outcome variables**
Treatment adherence

## General information

**Reason for update**

**Acronym**

**IRCT registration information**
IRCT registration number: **IRCT20140427017454N6**
Registration date: **2022-10-06, 1401/07/14**
Registration timing: **prospective**

Last update: **2022-10-06, 1401/07/14**
Update count: **0**

**Registration date**
2022-10-06, 1401/07/14

**Registrant information**

**Name**
kourosh Amini

**Name of organization / entity**
Zanjan university of medical sciences

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Iran (Islamic Republic of)

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**Recruitment status**
**Recruitment complete**

**Funding source**

**Expected recruitment start date**
2022-10-23, 1401/08/01

**Expected recruitment end date**

2023-01-21, 1401/11/01

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

A comparison of the effect of education through social networks with face-to-face teaching on adherence to treatment in patients with hypertension

**Public title**

Comparison of the effect of education through social networks with face-to-face teaching on adherence to treatment in patients with hypertension

**Purpose**

Education/Guidance

**Inclusion/Exclusion criteria**

**Inclusion criteria:**

Over 18 years of age Having a history of hypertension for at least six months, which a cardiologist confirmed. Being literate in reading and writing Not having secondary, and treatment-resistant hypertension Absence of severe mental/psychological disturbances Having the patient's own smart cell phone and access to the Internet Having informed consent to participate in the study

**Exclusion criteria:**

Concurrent participation in another study or similar educational program Impossibility to continue participating in the study for any reason Not completing data gathering tools

**Age**

From **18 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

- Data analyser

**Sample size**

Target sample size: **210**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

The distribution of patients in three groups will be by using the randomized block design. Based on this, the patients who meet the inclusion criteria will be equally distributed into three groups; Intervention group A (virtual training), B (face-to-face training), and C (control group). Since we will have three groups in this study, it is planned to have blocks of six in number. In the random distribution of patients in three groups, all possible forms of blocks with the equal presence of all three groups will be determined and placed inside separate envelopes. The project manager will randomly select the envelopes and inform the sampler of each patient's grouping order. For example, Block NO one may be arranged as AABBCC; This means that the first and second eligible patients will be assigned to intervention group A (virtual education), the following two patients to the face-to-face education group (group B), and the subsequent two patients to the control group (group C).

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

Due to the study's design, only blinding will be possible for the statistical analysis stage of the data. In other words, the statistician will be unaware of the participating groups.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

**Ethics committee**

**Name of ethics committee**

Ethics committee of Shiraz University of Medical Sciences

**Street address**

Azadi boulevard

**City**

Zanjan

**Province**

Zanjan

**Postal code**

4513956184

**Approval date**

2022-09-29, 1401/07/07

**Ethics committee reference number**

IR.ZUMS.REC.1401.196

## Health conditions studied

### 1

**Description of health condition studied**

Hypertension

**ICD-10 code**

I10

**ICD-10 code description**

Essential (primary) hypertension

## Primary outcomes

### 1

**Description**

Treatment adherence

**Timepoint**

Before the intervention, immediately after the intervention, one month after the intervention, and three

months after the intervention

**Method of measurement**

The Medication Adherence Questionnaire (MAQ)

## Secondary outcomes

empty

## Intervention groups

### 1

**Description**

Intervention group (face-to-face): The way of conducting the educational intervention in the face-to-face group will be that it will be done once a week on Tuesday at the appointed time for four weeks with the coordination of the patients of this group. The patients of this group attend an educational class at the scheduled time in the heart clinics of Valiasr and Ayatollah Mousavi hospitals in Zanjan city. In the first session (first week), lectures, questions, and answers will give educational information related to the nature of high blood pressure disease and the effective factors to cause it. In the second session (second week), the content taught in the previous week is reviewed, and then the patients of this group are taught how to control high blood pressure and the importance of controlling it with the help of PowerPoint.In the third session (third week), while reviewing the contents of the previous two sessions and questions and answers related to the learned content, educational information regarding the importance of following the drug and behavioral regimen and its effect on blood pressure control in the form of a lecture and using It is presented from the lecture. In the fourth session (the last week), the content taught in the previous sessions will be summarized. Then the patients will be taught how to measure blood pressure using the blood pressure device. In the next step, the volunteers will be asked to measure the blood pressure of other peers in the researcher's presence. Finally, patients are advised to teach the learned method to their family members so that family members can regularly control their blood pressure.

**Category**

Behavior

### 2

**Description**

Intervention group (virtual): First, a group is created in one of the virtual software, such as WhatsApp, and sample members enter the group. Then, the educational content of the first session, which is related to the nature of hypertension and the factors affecting it, are sent to the group in the form of text and voice. The patients are told that they can discuss their problems in the group if they have any doubts or questions. Or they discuss it privately with the group manager (researcher). In the second session, educational information on how to control high blood pressure and the importance of controlling it will be sent in the form of a PowerPoint and pictures. In the third session, the importance of following the medication and behavioral regimen and its effect on controlling high blood pressure will be discussed, which will be sent to the group in the form of text, voice, and educational clips. In the last session, an educational clip related to the method of measuring systolic and diastolic blood pressure using a blood pressure device, along with additional explanations in the form of text and voice, will be sent to the group. At the end of the session, we will encourage the patients to teach the learned method to their family members so that their blood pressure can be controlled regularly by family members.

**Category**

Behavior

## Recruitment centers

### 1

**Recruitment center**

**Name of recruitment center**

Zanjan Valieasr Hospital

**Full name of responsible person**

Dr. Mohammad Hassan Rostamkhani

**Street address**

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### 2

**Recruitment center**

**Name of recruitment center**

Zanjan Mosavi Hospital

**Full name of responsible person**

Dr. Mostafa Azizi

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## Sponsors / Funding sources

**1**

**Sponsor**

**Name of organization / entity**
Zanjan University of Medical Sciences

**Full name of responsible person**
Dr. Samad Nedri

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Vice President of Research and Technology., Zanjan University of Medical Sciences., Azadi Square

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Zanjan

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+98 24 3342 4770

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Research@zums.ac.ir

**Grant name**

**Grant code / Reference number**

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

**Title of funding source**
Zanjan 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**
Zanjan University of Medical Sciences

**Full name of responsible person**
Kourosh Amini

**Position**
Associate professor

**Latest degree**
Ph.D.

**Other areas of specialty/work**
Nursery

**Street address**
Dr Sobouti (Gavazang) Blvd., Central Campus of Zanjan University of Medical Science., School of Nursing and Midwifery

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## Person responsible for scientific inquiries

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## Person responsible for updating data

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Associate professor

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## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**
Yes - There is a plan to make this available

**Study Protocol**
Yes - There is a plan to make this available

**Statistical Analysis Plan**
Not applicable

**Informed Consent Form**
Yes - There is a plan to make this available

**Clinical Study Report**
Not applicable

**Analytic Code**
Not applicable

**Data Dictionary**
Not applicable

**Title and more details about the data/document**
All data will be shared after the de-identification of study participants and publication of results.

**When the data will become available and for how long**
The data availability period will start immediately after the results are published.

**To whom data/document is available**
Only researchers working in academic and scientific research centers and nurses working in hospitals can access the data of this study.

**Under which criteria data/document could be used**
Suppose the purpose of accessing the data is to develop research projects in the future or improve services to patients. The condition of access to the data will be a written and reasonable request of the applicant.

**From where data/document is obtainable**
Those who are interested in receiving the data can send an email to the project manager at Korosh@zums.ac.ir.

**What processes are involved for a request to access data/document**
The applicant can receive the data during an email while introducing himself and the purpose of accessing the data. The maximum response time to the requester will be one week.

**Comments**