

Clinical Trial Protocol

Iranian Registry of Clinical Trials

23 Oct 2026

Effect of two relaxation methods Jacobson's and Benson's on anxiety and physiological indicators of patients before coronary artery angiography

Protocol summary

Study aim

Effect of two relaxation methods Jacobson's and Benson's on anxiety and physiological indicators of patients before coronary artery angiography

Design

A clinical trial with a control group, one-way blind, single-center trial, randomized, 12 participants in 3 groups of 4 people.

Settings and conduct

The study is conducted on patients who refer to the angiography center of Kausar Hospital for coronary artery angiography.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Age 40 to 80 years; Not having mental, nervous and muscular diseases; No history of taking anti-anxiety and depression drugs in the last year; Absence of dangerous heart arrhythmia; The absence of an accident within a month before the intervention. Exclusion Criteria: Intolerance of exercises and or the patient's deterioration; Occurrence of hemodynamic disorder and emergency conditions.

Intervention groups

Intervention group1: In Jacobson's relaxation group, patients are asked to contract and relax their muscles for 12 minutes according to the protocol one hour before coronary angiography. Intervention group2: In Benson's relaxation group, patients are asked to contract and relax their muscles for 12 minutes according to the protocol one hour before coronary angiography. also, choose and repeat a soothing word that always reminds of relaxation and start breathing deeply and regularly. Control group: No treatment is done and only routine treatment is done. It is only for comparison with the intervention group.

Main outcome variables

Anxiety, Blood pressure.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20151228025732N82**

Registration date: **2024-06-29, 1403/04/09**

Registration timing: **prospective**

Last update: **2024-06-29, 1403/04/09**

Update count: **0**

Registration date

2024-06-29, 1403/04/09

Registrant information

Name

Alireza Emadi

Name of organization / entity

Semnan University of Medical Sciences, Semnan, Iran

Country

Iran (Islamic Republic of)

Phone

+98 23 3345 1336

Email address

are20935@semums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-07-20, 1403/04/30

Expected recruitment end date

2024-10-20, 1403/07/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
Effect of two relaxation methods Jacobson's and Benson's on anxiety and physiological indicators of patients before coronary artery angiography

Public title
Effect of two relaxation methods Jacobson's and Benson's on anxiety and physiological indicators of patients before coronary artery angiography

Purpose
Health service research

Inclusion/Exclusion criteria
Inclusion criteria:
Age 40 to 80 years Not having mental, nervous and muscular diseases No history of taking anti-anxiety and depression drugs in the last year Absence of dangerous heart arrhythmia The absence of an accident within a month before the intervention
Exclusion criteria:
Intolerance of exercises and or the patient's deterioration Occurrence of hemodynamic disorder and emergency conditions

Age
From **40 years** old to **80 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Participant
- Data analyser

Sample size
Target sample size: **12**

Randomization (investigator's opinion)
Randomized

Randomization description
Block randomization; Individual; Random Number Tables. Using Sealed Envelope software to generate random number tables

Blinding (investigator's opinion)
Single blinded

Blinding description
The participating person and the person who performs the statistical analysis do not know about the intervention modes.

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids
empty

Ethics committees

1

Ethics committee
Name of ethics committee

Ethics committee of Semnan University of Medical Sciences

Street address
Semnan University of Medical Sciences, Basij Blvd, Semnan

City
Semnan

Province
Semnan

Postal code
3514799442

Approval date
2024-03-11, 1402/12/21

Ethics committee reference number
IR.SEMUMS.REC.1403.001

Health conditions studied

1

Description of health condition studied
Anxiety

ICD-10 code
F41.9

ICD-10 code description
Anxiety disorder, unspecified

Primary outcomes

1

Description
Anxiety

Timepoint
Before and after the intervention

Method of measurement
Using the Spielberger questionnaire

2

Description
Blood pressure

Timepoint
Before and after the intervention

Method of measurement
Monitoring device

Secondary outcomes
empty

Intervention groups

1

Description
Intervention group1: In Jacobson's relaxation group, patients are asked to contract and relax their muscles for 12 minutes according to the protocol one hour before coronary angiography.

Category
Rehabilitation

2

Description

Intervention group2: In Benson's relaxation group, patients are asked to contract and relax their muscles for 12 minutes according to the protocol one hour before coronary angiography. also, choose and repeat a soothing word that always reminds of relaxation and start breathing deeply and regularly.

Category

Rehabilitation

3

Description

Control group: No treatment is done and only routine treatment is done. It is only for comparison with the intervention group.

Category

Diagnosis

Recruitment centers

1

Recruitment center

Name of recruitment center

Kowsar Hospital

Full name of responsible person

Mohammadreza Asgari

Street address

Street Amin, Semnan

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Semnan University of Medical Sciences

Full name of responsible person

Fatemeh Ehsani

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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

Semnan 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

Semnan University of Medical Sciences

Full name of responsible person

Mohammadreza Asgari

Position

Professor

Latest degree

Ph.D.

Other areas of specialty/work

Nursery

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Person responsible for updating data

Contact

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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

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