

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jun 2026

Comparison of the effect of 8 weeks High intensity interval training and Moderate-intensity aerobic continuous training on prevention of cardiovascular diseases in postmenopausal women

Protocol summary

Study aim

The purpose of this study was to compare the effects of 8 weeks high-intensity-interval-training versus moderate-intensity-aerobic-continuous-training on a predictive factor of heart-failure in sedentary postmenopausal women.

Design

randomized trail, one control group with two exercise groups with sample size of 30 individual with simple randomisation, enrolled between 2016 and 2017.

Settings and conduct

In this study, 30 healthy sedentary postmenopausal women were selected in Isfahan and the subjects were randomly divided into three groups high intensity interval training, moderate-intensity aerobic continuous training and control. The high intensity interval training group participated in an exercise program at 60-90% of heart rate reserve and the moderate-intensity aerobic continuous training group participated in an exercise program at 50-65% of heart rate reserve but the control group did not participate in any regular physical activity program during this period.

Participants/Inclusion and exclusion criteria

Inclusion criteria: participants were $46 \leq \text{age} \leq 65$ years; with regular eating patterns; healthy; living in Isfahan
Exclusion criteria: history of Heart Failure; hypertension; kidney disease; diabetes (type 2); history of cancer ; history of hyperlipidemia

Intervention groups

Intervention group 1: High Intensity Interval Training
Intervention group 2: Moderate Intensity Aerobic Continuous Training
Control group: Without training

Main outcome variables

some cardiovascular factors and lipid profiles were compared before and after 8 weeks in three groups.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190618043929N1**

Registration date: **2019-09-15, 1398/06/24**

Registration timing: **retrospective**

Last update: **2019-09-15, 1398/06/24**

Update count: **0**

Registration date

2019-09-15, 1398/06/24

Registrant information

Name

Diana keyhani

Name of organization / entity

The University of Urmia

Country

Iran (Islamic Republic of)

Phone

+98 31 3237 3306

Email address

keyhanid1368@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2016-09-22, 1395/07/01

Expected recruitment end date

2016-11-20, 1395/08/30

Actual recruitment start date

2016-12-22, 1395/10/02

Actual recruitment end date

2017-02-20, 1395/12/02

Trial completion date

2017-04-05, 1396/01/16

Scientific title

Comparison of the effect of 8 weeks High intensity interval training and Moderate-intensity aerobic continuous training on prevention of cardiovascular diseases in postmenopausal women

Public title

Effect of exercise in cardiovascular diseases

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

participants were $46 \leq \text{age} \leq 65$ years; with regular eating patterns; healthy; living in Isfahan

Exclusion criteria:

history of Heart Failure; hypertension; kidney disease; diabetes (type 2); history of cancer; history of hyperlipidemia

Age

From **45 years** old to **60 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **45**

Actual sample size reached: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple Random Sampling

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 Sport Sciences Research Institute of Iran

Street address

No. 3.5 St., MirEmad St., Motahari Ave., Tehran., Iran.

City

Tehran

Province

Tehran

Postal code

1587958711

Approval date

2016-10-31, 1395/08/10

Ethics committee reference number

IR.SSRI.REC.1395.113

Health conditions studied

1

Description of health condition studied

Heart Failure

ICD-10 code

I50

ICD-10 code description

Heart failure

Primary outcomes

1

Description

cardiovascular biomarkers

Timepoint

before and after intervention

Method of measurement

blood sample

Secondary outcomes

1

Description

lipid profile

Timepoint

before and after intervention

Method of measurement

blood sample

Intervention groups

1

Description

First intervention group: 8 weeks intensity interval training

Category

N/A

2

Description

Second intervention group: 8 weeks moderate-intensity aerobic continuous training

Category

N/A

3

Description

Control group: any regular physical activity program
Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Isfahan University
Full name of responsible person
Navid sedri
Street address
Hezarjrib St., Isfahan University
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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
The University of Urmia
Full name of responsible person
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Urmia University,. Nazloo Ave, Urmia University
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5756151818
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info@urmia.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
The University of Urmia
Proportion provided by this source
100
Public or private sector
Private
Domestic or foreign origin
Domestic
Category of foreign source of funding
empty

Country of origin
Type of organization providing the funding
Persons

Person responsible for general inquiries

Contact

Name of organization / entity
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Diana Keyhani
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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

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is 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

Title and more details about the data/document

The main results of the study

When the data will become available and for how long

One year after the publication of the results

To whom data/document is available

All researchers

Under which criteria data/document could be used

More detailed studies in this field

From where data/document is obtainable

Diana Keyhani keyhanid1368@gmail.com

What processes are involved for a request to access data/document

8 weeks

Comments