

Clinical Trial Protocol

Iranian Registry of Clinical Trials

02 Jul 2026

The effect of sequence order of combined training (resistance and endurance) on strength, aerobic capacity and body composition in older women

Protocol summary

Summary

The main purpose of this study is to investigate the effect of sequence order of combined training (resistance and endurance) on strength, aerobic capacity and body composition in older women. This study is a quasi-experimental research, 60 retired elderly woman of Education select purposely and randomly place into four groups of 15 subjects: endurance plus strength training, strength plus endurance training, interval concurrent training and control groups then the weight, height, body mass index, body fat percentage, maximum strength and maximal oxygen uptake be measure. Training programs will be perform for eight week, 3 times per week. Endurance training program Include a cycle ergo-meter and strength training program Include several upper and lower body workout. Forty-eight hours after the last training session all variables will be measured as per-test.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2014111819995N1**
Registration date: **2014-12-25, 1393/10/04**
Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-12-25, 1393/10/04

Registrant information

Name

Zahra Mardanpour Shahrekordi

Name of organization / entity

Shahrekord University

Country

Iran (Islamic Republic of)

Phone

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Email address

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Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2014-03-07, 1392/12/16

Expected recruitment end date

2014-04-07, 1393/01/18

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of sequence order of combined training (resistance and endurance) on strength, aerobic capacity and body composition in older women

Public title

The effect of sequence order of combined training (resistance and endurance) on the body performance of older women

Purpose

Diagnostic

Inclusion/Exclusion criteria

Inclusion criteria: female; 58 to 70 years; without experience of regular physical activity in one year before beginning of the study; the level of physical and mental health Exclusion criteria: history of cardiovascular diseases; cancer; high blood pressure; diabetes; thyroid

disease; addiction to any smoking, alcohol and narcotic substances; Hormonal disorders; kidney or liver disease; surgery any medical intervention affecting the experimental results

Age

From **58 years** old to **70 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Aerobic training perform on a cycle ergomete and Resistance exercise with gym apparatus.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Shahrekord University

Street address

Rahbar Blvd, Shahrekord

City

Shahrekord

Postal code

8818634141

Approval date

2014-03-06, 1392/12/15

Ethics committee reference number

190/579 م پ

Health conditions studied

1

Description of health condition studied

Relationship of sequence order of combined training (resistance and endurance) on strength, aerobic capacity and body composition in older women

ICD-10 code

R54

ICD-10 code description

Senility

Primary outcomes

1

Description

Maximum strength

Timepoint

Before and after 8 weeks of intervention

Method of measurement

By use 1 Repetition Maximum formul

2

Description

Maximal oxygen uptake

Timepoint

Before and after 8 weeks of intervention

Method of measurement

Modified Bruce treadmill test

3

Description

Body fat percent

Timepoint

Before and after 8 weeks of intervention

Method of measurement

Using calipers Base Line

4

Description

Weight

Timepoint

Before and after 8 weeks of intervention

Method of measurement

Weight meter Seca

5

Description

Height

Timepoint

Before and after 8 weeks of intervention

Method of measurement

Using a height gauge model Saros

6

Description

Body Mass Index (BMI)

Timepoint

Before and after 8 weeks of intervention

Method of measurement

Weight divided by height squared

Secondary outcomes

empty

Intervention groups

1

Description

The endurance plus strength training group follow an combined training program for 8 weeks Who in the first do endurance training program and then 2 minutes of rest do strength training program.

Category

Other

2

Description

The strength plus endurance training group follow an combined training program for 8 weeks Who in the first do strength training program and then 2 minutes of rest do endurance training program.

Category

Other

3

Description

The interval training group do rotating E plus S plus E plus S plus E plus S training programs , so that's the strength and endurance program was divided into three parts.

Category

Other

4

Description

The control group do not any regular physical activity in Daily life.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Department of Education region 1 of Shahrekord city

Full name of responsible person

Street address

City

Shahrekord

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahrekord University

Full name of responsible person

Dr Ebrahim Banitalebi

Street address

Rahbar Blvd, Shahrekord

City

Shahrekord

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Shahrekord University

Proportion provided by this source

100

Public or private sector

empty

Domestic or foreign origin

empty

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

empty

Person responsible for general inquiries

Contact

Name of organization / entity

Shahrekord University

Full name of responsible person

Dr Ebrahim Banitalebi

Position

Ph.D of Sport Physiology/Assistant Professor

Other areas of specialty/work

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Person responsible for scientific inquiries

Contact

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Position

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Other areas of specialty/work

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Person responsible for updating data

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Name of organization / entity
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MSc, Applied Exercise Physiology
Other areas of specialty/work
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Phone

Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty
Study Protocol
empty
Statistical Analysis Plan
empty
Informed Consent Form
empty
Clinical Study Report
empty
Analytic Code
empty
Data Dictionary
empty