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: IRCT20141111819995N1
Registration date: 2014-12-25, 1393/10/04
Registration timing: retrospective

Country
Iran (Islamic Republic of)
Phone
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Email address
banitalebi@lit.sku.ac.ir

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**
Not used

**Placebo**
Not used

**Assignment**
Parallel

**Other design features**
Aerobic training perform on a cycle ergometer and Resistance exercise with gym apparatus.

**Secondary Ids**
empty

**Ethics committees**

1

**Ethics committee**

<table>
<thead>
<tr>
<th>Name of ethics committee</th>
<th>Shahrekord University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street address</td>
<td>Rahbar Blvd, Shahrekord</td>
</tr>
<tr>
<td>City</td>
<td>Shahrekord</td>
</tr>
<tr>
<td>Postal code</td>
<td>8818634141</td>
</tr>
</tbody>
</table>

**Approval date**
2014-03-06, 1392/12/15

**Ethics committee reference number**
190/579

**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
City
Shahrekord

Sponsors / Funding sources

1
Sponsor
Name of organization / entity
Shahrekord University
Full name of responsible person
Dr Ebrahim Banitalebi
Street address
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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

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty
Study Protocol
data
Statistical Analysis Plan
date
Informed Consent Form
date
Clinical Study Report
date
Analytic Code
date
Data Dictionary
date