

Clinical Trial Protocol

Iranian Registry of Clinical Trials

04 Aug 2026

Comparing the effects of treadmill and ground walking on maximum oxygen consumption and body composition Inactive overweight women

Protocol summary

Summary

The aim of the study was to compare the effects of treadmill and ground walking, on maximal oxygen uptake (VO₂max), body mass index (BMI) and body fat percentage among inactive overweight women. This study was a single blind clinical trial study with simple random allocation. In this study, 30 healthy, inactive, and overweight women were randomly allocated into three equal groups (walking- walking on a Treadmill -control). Subjects not participating in exercise regularly or with any type of physical injury and orthopedic exercises to interfere with the implementation of the survey were excluded. Experimental group: implement exercise (eight weeks with a frequency of three sessions per week of walking for 20 to 40 minutes per session) with 60 to 85 percent of heart rate reserve. Before and after the exercise program, maximum oxygen consumption, body mass index and percent body fat were measured.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015100224291N1**

Registration date: **2015-12-26, 1394/10/05**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2015-12-26, 1394/10/05

Registrant information

Name

Zohreh Delfani

Name of organization / entity

Shahid Rajaei Teacher Training University

Country

Iran (Islamic Republic of)

Phone

+98 21 2297 0060

Email address

z.delfani@srttu.edu

Recruitment status

Recruitment complete

Funding source

Shahid Rajaei Teacher Training University

Expected recruitment start date

2014-04-09, 1393/01/20

Expected recruitment end date

2014-06-10, 1393/03/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparing the effects of treadmill and ground walking on maximum oxygen consumption and body composition Inactive overweight women

Public title

Effect of Walking in Inactive overweight women

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria: Inactive, overweight, female age between 30 to 45, without regular physical activity, without spinal surgery during last year Exclusion criteria, without cardiovascular disease. Exclusion criteria: Any physical injury and orthopedic to interfere with training and Hinder the quality of training.

Age

From **30 years** old to **45 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 30

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single 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 Shahid Rajaei Teacher Training University

Street address

Shabanlou, Lavizan, Tehran

City

Tehran

Postal code

Approval date

2013-12-22, 1392/10/01

Ethics committee reference number

1024/1

Health conditions studied

1

Description of health condition studied

Over weight

ICD-10 code

E66,E67,E6

ICD-10 code description

Endocrine, nutritional and metabolic diseases

Primary outcomes

1

Description

Vo2max

Timepoint

before and 8 weeks after intervention

Method of measurement

Quinn Step test

2

Description

Percent Body Fat

Timepoint

before and 8 weeks after intervention

Method of measurement

Skin Fold

Secondary outcomes

empty

Intervention groups

1

Description

Intervention in group Exercise protocol Contains of training followed Based on the principle of overload. First week walking 20 minutes and with 60 percent of heart rate reserve and 2 minutes into added time practicing every week and seventh and eighth weeks practice was conducted for 30 minutes and every two weeks to 5% was added to the intensity of exercise. Eight weeks with a frequency of three sessions per week and intensity was controlled by rate monitor Polar.

Category

Prevention

2

Description

Intervention 3: no action

Category

Prevention

3

Description

Intervention in group Exercise protocol Contains of training followed Based on the principle of overload. First week walking on treadmill 20 minutes and with 60 percent of heart rate reserve and 2 minutes into added time practicing every week and seventh and eighth weeks practice was conducted for 30 minutes and every two weeks to 5% was added to the intensity of exercise. Eight weeks with a frequency of three sessions per week and intensity was controlled by rate monitor Polar.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Shahid Rajaei Teacher Training University

Full name of responsible person

Zohreh Delfani

Street address

Shabanlou St., Lavizan, Tehran.

City
Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research,shahid Rajaee Teacher
Training University of Medical Sciences

Full name of responsible person

Majid Kashef

Street address

Shabanlou St., Lavizan, Tehran.

City

Tehran

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice chancellor for research,shahid Rajaee Teacher
Training University of Medical Sciences

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

Shahid Rajaee Teacher Training University

Full name of responsible person

Fereshte Shahidi

Position

Phd

Other areas of specialty/work

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Person responsible for scientific

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Person responsible for updating data

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Zohreh Delfani

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Web page address

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