

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

04 Jul 2026

### Comparison of the effect of continuous and interval aerobic training on ECG of active young girls

#### Protocol summary

##### Study aim

Comparison of the effect of continuous and interval aerobic training on ECG of active young girls

##### Design

The research method was experimental and 30 active young girls were selected from among physical education students (age=17.0±0.4 yr) and were assigned to three groups of continuous aerobic training, interval aerobic training and control (replacement randomization, each group was 10).

##### Settings and conduct

The present study was experimental study including experimental groups (continuous aerobic exercise and periodic aerobic training) and control. The measurements were repeated and included pre-test (before the training period) and post-test (after the training period), and young and active (physically) young girls were studied in Bukan City.

##### Participants/Inclusion and exclusion criteria

The criteria for entry of subjects to the study include alcohol not being consumed, tobacco and any medication or sports supplements, lack of dietary regimen, absence of any specific disease, such as cardiovascular, respiratory and musculoskeletal-orthopedic diseases in three month before the start of the study and withdrawal criteria include the lack of regular exercise, drug use, alcohol, tobacco or nutritional supplements, dietary changes, exercises other than prescribed exercises, cardiovascular, respiratory diseases and musculoskeletal-orthopedic and non-compliance with other recommended recommendations during the course of the study.

##### Intervention groups

Continuous aerobic exercise (n = 10), interval aerobic exercise (n = 10) and control (n = 10)

##### Main outcome variables

ECG

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20120702010158N6**

Registration date: **2019-05-04, 1398/02/14**

Registration timing: **retrospective**

Last update: **2019-05-04, 1398/02/14**

Update count: **0**

##### Registration date

2019-05-04, 1398/02/14

##### Registrant information

##### Name

Fatah Moradi

##### Name of organization / entity

Islamic Azad University of Saghez

##### Country

Iran (Islamic Republic of)

##### Phone

+98 87 3630 5049

##### Email address

moradi\_fatah@iausaghez.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2017-12-22, 1396/10/01

##### Expected recruitment end date

2018-03-21, 1397/01/01

##### Actual recruitment start date

2017-12-22, 1396/10/01

##### Actual recruitment end date

2018-03-21, 1397/01/01

##### Trial completion date

2018-03-21, 1397/01/01

## Scientific title

Comparison of the effect of continuous and interval aerobic training on ECG of active young girls

## Public title

Effect of continuous and interval training on ECG

## Purpose

Education/Guidance

## Inclusion/Exclusion criteria

### Inclusion criteria:

Gender female, age 16-18 yr, being physically active

### Exclusion criteria:

Alcohol, tobacco and any medication or supplements in the three months leading up to the study  
Being under the diet in the three months leading up to the study  
Cases of any specific disease such as cardiovascular, respiratory and musculoskeletal-orthopedic diseases in the three months leading up to the study

## Age

From **16 years** old to **18 years** old

## Gender

Female

## Phase

N/A

## Groups that have been masked

*No information*

## Sample size

Target sample size: **32**

Actual sample size reached: **30**

## Randomization (investigator's opinion)

Randomized

## Randomization description

An replacement randomization method is used. First, a simple randomization method (random number table) is used first, and the randomization program is repeated as long as the desired equilibrium is achieved (that is, 10 people in each group).

## 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

Research Ethics Committee of Sport Sciences  
Research Institute

##### Street address

No. 3, 5th St., Mir Emad St, Motahari Ave., Tehran,  
Iran. Tel No: 0098 21 88529122

##### City

Tehran

## Province

Tehran

## Postal code

1587958711

## Approval date

2019-03-11, 1397/12/20

## Ethics committee reference number

IR.SSRC.REC.1398.004

## Health conditions studied

### 1

#### Description of health condition studied

Being physically active

#### ICD-10 code

#### ICD-10 code description

## Primary outcomes

### 1

#### Description

ECG

#### Timepoint

Immediately before and 48 hours after intervention

#### Method of measurement

Electrocardiogram

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: Continuous aerobic training, the protocol of the trainings (eight weeks, three sessions per week) included 20-35 minutes of running per session, with an intensity of 60-75% of the maximum heart rate.

#### Category

Lifestyle

### 2

#### Description

Intervention group: Interval aerobic training, the protocol of the trainings (eight weeks, three sessions per week) included 20-35 minutes of running per session, with an intensity of 60-75% of the maximum heart rate.

#### Category

Lifestyle

### 3

#### Description

Control group: No exercise training

#### Category

Lifestyle

## Recruitment centers

1

### Recruitment center

**Name of recruitment center**

Fajr High School

**Full name of responsible person**

Hawzhin Azizi

**Street address**

NO 8, Awesta 7, Kordestan Blvd, Boukan City

**City**

Boukan

**Province**

West Azarbaijan

**Postal code**

5951755693

**Phone**

+98 44 4624 7870

**Email**

hawzhin.azizi63@gmail.com

## Sponsors / Funding sources

1

### Sponsor

**Name of organization / entity**

Islamic Azad University

**Full name of responsible person**

Wafa Morsali

**Street address**

Sharifabad Town

**City**

Saghez

**Province**

Kurdistan

**Postal code**

6681973477

**Phone**

+98 87 3625 0255

**Fax**

+98 87 3624 4750

**Email**

vafa.morsali@yahoo.com

**Web page address**

<http://iausaghez.ac.ir/>

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

**Title of funding source**

Islamic Azad University

**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**

Islamic Azad University

**Full name of responsible person**

Fatah Moradi

**Position**

Faculty member

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Physiology

**Street address**

Sharifabad

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## Person responsible for scientific inquiries

**Contact****Name of organization / entity**

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**Full name of responsible person**

Fatah Moradi

**Position**

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**Sharing plan****Deidentified Individual Participant Data Set (IPD)**

No - There is not a plan to make this available

**Justification/reason for indecision/not sharing IPD**

Participants are studied as a sample.

**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**

Not applicable

**Analytic Code**

Not applicable

**Data Dictionary**

Not applicable