Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 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

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Fatah Moradi
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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
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NO 8, Awesta 7, Kordestan Blvd, Boukan City
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Islamic Azad University
Full name of responsible person
Wafa Morsali
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Sharifabad Town
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Saghez
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6681973477
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Fax
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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
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Fatah Moradi
Position
Faculty member
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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