

Clinical Trial Protocol

Iranian Registry of Clinical Trials

29 Jun 2026

The Effect of Early, Average and Late Sexual Maturation on Peak and Mean Absolute and Relative Anaerobic Power Trainability of Healthy and Untrained 13 Years Old Adolescent girls

Protocol summary

Summary

The purpose of this study was to determine amount of trainability of peak and mean absolute and relative anaerobic power (relative to body weight) and comparing trainability of these factors in female adolescent girls in early , average and late monarch menstruation state. For this purpose, 36 adolescent healthy untrained girls in Shiraz city were selected using cluster sampling method. Subjects were selected randomly from 3 groups of adolescents in early, average and late monarch considering their first menstruation age and participated in 8 weeks, 3 sessions every week of anaerobic training (sprint and continues jumping). Before and after training program using Bosco test for evaluating peak and mean anaerobic power.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201205319918N1**

Registration date: **2012-07-30, 1391/05/09**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2012-07-30, 1391/05/09

Registrant information

Name

Sepideh Heidarian

Name of organization / entity

Alzahra University

Country

Iran (Islamic Republic of)

Phone

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Email address

heidarians@ut.ac.ir

Recruitment status

Recruitment complete

Funding source

Alzahra University

Expected recruitment start date

2008-06-30, 1387/04/10

Expected recruitment end date

2008-08-31, 1387/06/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect of Early, Average and Late Sexual Maturation on Peak and Mean Absolute and Relative Anaerobic Power Trainability of Healthy and Untrained 13 Years Old Adolescent girls

Public title

The Effect of Sexual Maturation on Anaerobic Trainability of Adolescent Girls

Purpose

Diagnostic

Inclusion/Exclusion criteria

Inclusion criteria: Girl; Untrained; Girls experience menarche Exclusion criteria: Girls below and above the 13 years old

Age

From **13 years** old to **13 years** old

Gender

Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: 36

Randomization (investigator's opinion)
N/A

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Alzahra University

Street address

Alzahra University, Vanak, Tehran, Iran P.Code:
1993893973

City

Tehran

Postal code

1993893973

Approval date

2008-10-05, 1387/07/14

Ethics committee reference number

23362/ت

Health conditions studied

1

Description of health condition studied

Trainability of Sexual Maturation in Adolescent Girls

ICD-10 code

Z00.3, Z02

ICD-10 code description

Examination for adolescent development state,
Examination for participation in sport

Primary outcomes

1

Description

Anaerobic Trainability

Timepoint

Before and After Treatment

Method of measurement

Anaerobic power with Bosco test

Secondary outcomes

1

Description

Weight

Timepoint

Before and After Treatment

Method of measurement

Body Composition System

2

Description

Muscle Mass

Timepoint

Before and After Treatment

Method of measurement

Body Composition System

Intervention groups

1

Description

Three session Anaerobic training per week for one hour
each during eight weeks period.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Guidance Schools

Full name of responsible person

Street address

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Alzahra University

Full name of responsible person

Dr Mobasheri

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Alzahra University, Vanak, Tehran, Iran P.Code:
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Grant name

Grant code / Reference number

Is the source of funding the same sponsor

organization/entity?

Yes

Title of funding source

Alzahra 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**

Alzahra University

Full name of responsible person

Sepideh Heidarian

Position

Master's Degree/ Student and Teacher

Other areas of specialty/work**Street address**

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Position

PhD

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Position

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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