Clinical Trial Protocol
Iranian Registry of Clinical Trials

02 Jul 2026

Comparison of the effects of interval training and vitamin D on symptoms of premenstrual syndrome in non-athlete females

Protocol summary

Summary

The purpose of this study was to compare the effects of interval training and vitamin D on the Pre-Menstrual Syndrome in non-athletic girls. Designing: This experimental study was conducted on 45 non-athlete female students. They were at the age of 18-23 years old and had been diagnosed with PMS. Participants were randomly divided into two experimental groups (vitamin D, education) and a control group through coin toss. Interventions were as following; Intervention group 1: interval training was performed during 6 weeks and there were 3 sessions of training in every week and each session lasted 45 minutes. Intervention group 2: Students in other group were advised to use the vitamin D (1000IU), 1 time a day for a 6 weeks. Control group: students in this group didn't use any exercise or drug. The main outcomes of this study – physical symptoms and mood and behavioral symptoms- were investigated using premenstrual symptoms screening tool (psst).

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016080420465N5**
Registration date: **2017-04-21, 1396/02/01**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2017-04-21, 1396/02/01

Registrant information

Name

Fatemeh Omidali

Name of organization / entity

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Country

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Recruitment status

Recruitment complete

Funding source

University of Ayatollah Boroujerdi

Expected recruitment start date

2015-09-23, 1394/07/01

Expected recruitment end date

2016-04-19, 1395/01/31

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effects of interval training and vitamin D on symptoms of premenstrual syndrome in non-athlete females

Public title

The effects of interval training and vitamin D on symptoms of premenstrual syndrome

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: PMS symptoms; not being under medical treatment; non-athletes. Exclusion criteria: being affected with any type of disease; lack of cooperation

Age

No age limit

Gender

Female

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **120**
Randomization (investigator's opinion)
Randomized
Randomization description
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
Ethics committee of University of Ayatollah Boroujerdi
Street address
3th kilometer of Khorramabad road
City
Bourujerd
Postal code
167
Approval date
2015-01-13, 1393/10/23
Ethics committee reference number
93-10پ

2

Ethics committee
Name of ethics committee
Ethics committee of University of Ayatollah Boroujerdi
Street address
3th kilometer of Khorramabad road
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Bourujerd
Postal code
167
Approval date
2014-09-23, 1393/07/01
Ethics committee reference number
93-10پ

Health conditions studied

1

Description of health condition studied
Premenstrual syndrome (PMS)
ICD-10 code
N94.3
ICD-10 code description
Premenstrual tension syndrome

Primary outcomes

1

Description
physical symptoms
Timepoint
At the begining and at the end of the study
Method of measurement
Premenstrual Symptoms screening tool (PSST), Iranian version

2

Description
mood and behavioral symptoms
Timepoint
At the begining and at the end of the study
Method of measurement
Premenstrual Symptoms screening tool (PSST), Iranian version

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group 1: interval training, 45 minutes in each session, 3 times a week, for 6 weeks.
Category
Lifestyle

2

Description
Intervention group 2: oral vitamin D, 1000 IU, 1 time a day, for 6 weeks.
Category
Treatment - Drugs

3

Description
Control group: not done any exercise and do not use drugs
Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Ayatollah Bourujerdy University
Full name of responsible person
Fatemeh Omidali
Street address
City
Bourujerd

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Ayatolah Bourujerdy University
Full name of responsible person
Fatemeh Omidali
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Bourujerd
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Ayatolah Bourujerdy 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
empty
Statistical Analysis Plan
empty
Informed Consent Form
empty
Clinical Study Report
empty
Analytic Code
empty
Data Dictionary
empty