

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jul 2026

Comparison of the Effect of two Different Patterns of Traditional and double Pyramidal Resistance Training on some Bioenergetics and Psychological Factors of Teenage Wrestlers

Protocol summary

Study aim

Comparison of the effects of traditional resistance training and double pyramid on some bioenergetic and psychological characteristics of teenage wrestlers

Design

The experiment includes 30 male teenage wrestlers aged between 15 and 17 years old, and they are randomly divided into two groups of 15 people for traditional and two-person pyramid training. Both training groups will train 3 sessions per week on non-consecutive days (every other day) for a total of 8 weeks.

Settings and conduct

The training program in each session will include: three times with 12 repetitions and with an intensity of 55 to 85% of a maximum repetition for the training group in the traditional way. The pyramid training group will be 12 repetitions with 55% intensity and at least 4 repetitions with 85% intensity. The rest time between stations is 1 minute and the rest time between each turn is 2 minutes. The overload will be in such a way that after the ability of 2 repetitions to 12 repetitions of each muscle, five percent of the weight was on the upper body muscles and 10 percent on the lower body muscles. Rest test and one mile and Australian Institute questionnaire. The venue of the ceremony is the second fifteen-meter corner of Borumand Poria Club

Participants/Inclusion and exclusion criteria

Inclusion criteria :15-17 year old wrestlers. Exclusion criteria : Not having a history of specific diseases, not smoking and alcohol

Intervention groups

30 junior wrestlers were divided into two groups of 15 as follows; 1-Traditional exercise 2- Pyramid exercise

Main outcome variables

Maximum aerobic capacity and maximum oxygen consumption will be measured, and in the psychological part, motivation, self-confidence, and concentration will

be measured.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230515058199N1**

Registration date: **2023-06-13, 1402/03/23**

Registration timing: **prospective**

Last update: **2023-06-13, 1402/03/23**

Update count: **0**

Registration date

2023-06-13, 1402/03/23

Registrant information

Name

Hosein Heydari

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 21 3366 2738

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-06-17, 1402/03/27

Expected recruitment end date

2023-08-21, 1402/05/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the Effect of two Different Patterns of Traditional and double Pyramidal Resistance Training on some Bioenergetics and Psychological Factors of Teenage Wrestlers

Public title

Comparison of two training systems on wrestlers

Purpose

Basic science

Inclusion/Exclusion criteria**Inclusion criteria:**

Junior wrestlers who are 15-17 years old

Exclusion criteria:

Not having a history of specific diseases, not smoking and alcohol

Age

From **15 years** old to **17 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

N/A

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**

Research Ethics Committees of Shahed university

Street address

Tehran, Quds town (west), between South Flamek and Zarafshan, Simai Iran St., Central Headquarters of the Ministry of Health, Treatment and Medical Education, Block A, 13th floor

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Province

Tehran

Postal code

1419733141

Approval date

2023-05-08, 1402/02/18

Ethics committee reference number

IR.SHAHED.REC.1402.003

Health conditions studied**1****Description of health condition studied**

Comparison Of The Effect Of Two Different Patterns Of Traditional And Double Pyramidal Resistance Training On Some Bioenergetics And Psychological Factors Of Teenage Wrestlers

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Maximal Anaerobic Power

Timepoint

The training period was 8 weeks and it was measured before and after the tests.

Method of measurement

Rest test

2**Description**

Maximum oxygen consumption

Timepoint

The training period was 8 weeks and it was measured before and after the tests.

Method of measurement

One mile test

3**Description**

Psychological characteristics

Timepoint

The training period was 8 weeks and it was measured before and after the tests.

Method of measurement

Sports institute questionnaire

Secondary outcomes**1****Description**

Power

Timepoint

Before starting the exercise and after the protocol

Method of measurement

Test

Intervention groups

1

Description

intervention group 1 :It will be done with a pre-test and post-test plan in this group. The subjects include 15 male teenage wrestlers with an age range of 15 to 17 years, from the wrestlers of the 15th district of Tehran, Borumand Pouria club. The traditional resistance training protocol includes 3 upper body exercises and 3 lower body exercises in addition to crunch and fillet exercises Traditional will do their program. The exercise program in each session includes: three set with 12 repetitions and with an intensity of 55 to 85% of a maximum repetition for the training group in the traditional way. In this training group, 3 session week on non-consecutive days (one day in Middle) and will train for a total of 8 weeks.

Category

N/A

2

Description

Intervention group 2: Pre-test and post-test will be done in this group. The subjects include 15 male teenage wrestlers with an age range of 15 to 17 years from the wrestlers of the 15th district of Tehran, Borumand Pouria club. The pyramid resistance training protocol includes 3 upper body exercises and 3 lower body exercises in addition to crunches and fillets, which the pyramid training group of the program will do themselves. For the pyramid training group, it will be 12 repetitions with an intensity of 55% and with at least 4 repetitions and an intensity of 85%. In this group, there will be 3 sessions per week on non-consecutive days (every other day) and in total They will train for 8 weeks.

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Borumand Club, Poria

Full name of responsible person

Hosein Heydari

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Officer's office, corner of 21 St., Borumand Club, Poria

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahed University

Full name of responsible person

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Grant name

Research Assistant of Shahid University

Grant code / Reference number

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

Yes

Title of funding source

Shahed 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

Shahed University

Full name of responsible person

Hosein Heydari

Position

Student

Latest degree

Bachelor

Other areas of specialty/work

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
Not applicable
Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available
Clinical Study Report
Not applicable
Analytic Code
Not applicable
Data Dictionary
Not applicable