

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Aug 2026

Effect of Core Stabilization Exercises on Selected Physiological and Functional Characteristic of Paddlers

Protocol summary

Study aim

This study examines the effect of trunk stability and endurance training along with resistance training on some physiological factors and improving the performance of rowers.

Design

A trial with two groups of control and intervention, with single groups, one-way blind, randomized, for 16 female athletes rowing, random selection was used by number list method

Settings and conduct

Anthropometric data were collected from 16 rowers, members of the sailing team of Tehran province, at Imam Khomeini Hospital, Sports Medicine Department. Collection of functional data including rowing record of 500 meters and record of torso stability movements, physiological data including McArdel step test to assess aerobic power, blood lactate threshold after rowing 500 meters before and after 8 weeks of training were performed in separate sessions. . Both groups did training for 8 weeks, 2 sessions of sailing per week and 2 sessions of bodybuilding per week in Azadi Sport Complex.

Participants/Inclusion and exclusion criteria

The physical health questionnaire was completed by their parents. The condition for entering the research of the subjects is the absence of any abnormality or disease and the condition for leaving the research of the disease or absence is during the 8 weeks of training sessions.

Intervention groups

Both control and intervention groups have performed eight sessions of bodybuilding and boating exercises, and the intervention group has also performed trunk stability training sessions in addition to these exercises.

Main outcome variables

Delay fatigue, increase torso endurance, improve performance, increase aerobic power

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20191019045152N1**

Registration date: **2021-12-29, 1400/10/08**

Registration timing: **retrospective**

Last update: **2021-12-29, 1400/10/08**

Update count: **0**

Registration date

2021-12-29, 1400/10/08

Registrant information

Name

Faegheh Naghizadeh

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 26 3230 5954

Email address

faegheh.naghizadeh@srbiau.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-09-22, 1398/06/31

Expected recruitment end date

2019-11-13, 1398/08/22

Actual recruitment start date

2019-09-29, 1398/07/07

Actual recruitment end date

2019-11-20, 1398/08/29

Trial completion date

2019-11-20, 1398/08/29

Scientific title

Effect of Core Stabilization Exercises on Selected
Physiological and Functional Characteristic of Paddlers

Public title

Effect of Core Stabilization Exercises on Physiological and
Functional Characteristic of Athletes

Purpose

Other

Inclusion/Exclusion criteria

Inclusion criteria:

Adult girls 12 to 13 years Be Athlete and kayak girls
Having Physical and mental health They don't do any
other exercise Have no other special diet Teenage kayak
girls at Azadi Sport Complex

Exclusion criteria:

Lack of interest in participating in the project Inability to
attend regular training sessions

Age

From **12 years** old to **13 years** old

Gender

Female

Phase

N/A

Groups that have been masked

- Care provider
- Investigator
- Outcome assessor
- Data analyser
- Data and Safety Monitoring Board

Sample size

Target sample size: **24**

Actual sample size reached: **16**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization - lottery: in which the researcher
puts people in different groups based on the lottery and
the lottery is done in the form of registration on sheets
with a black background.

Blinding (investigator's opinion)

Single blinded

Blinding description

In this study, the researcher and supervisor were blinded
by the study and were unaware of the study groups. So
that only the coaches hired and the subjects who
received the activity were inevitably aware of the type of
sports intervention. In this study, to prevent the
researcher from biasing in the analysis of the results
until the last stage of the study, which was the analysis
of the findings, the researcher was unaware of the
grouping process. It should be noted that the participants
were not blinded because they were doing the exercise.
In fact, it was not possible for the participants to be
blinded because they understood and performed the
exercise.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee in Biomedical Research of Ministry
of Islamic Azad University Science and Research

Street address

Floor 13, Block A, Ministry of Health & Medical
Education Headquarters, Between Zarafashan &
South Falamak, Qods Town, Tehran, Iran.

City

Tehran

Province

Tehran

Postal code

۱۴۱۹۹۴۳۴۷۱

Approval date

2019-10-17, 1398/07/25

Ethics committee reference number

IR.IAU.SRB.REC.1398.100

Health conditions studied

1

Description of health condition studied

The effect of trunk stability exercises on performance
and physiological factors of athletes

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

blood lactate dehydrogenase.

Timepoint

The first at the beginning of the study (before the
intervention) and the second after 8 weeks of practice
(end of the intervention)

Method of measurement

lactate dehydrogenase kit

2

Description

VO2max of rowers.

Timepoint

The first at the beginning of the study (before the
intervention) and the second after 8 weeks of Training
(end of the intervention)

Method of measurement

Step Test for Womens

3

Description

the record level of 500 meters.

Timepoint

The first at the beginning of the study (before the intervention) and the second after 8 weeks of Training (end of the intervention)

Method of measurement

500m rowing test

4

Description

the functional level of the trunk.

Timepoint

The first at the beginning of the study (before the intervention) and the second after 8 weeks of Training (end of the intervention)

Method of measurement

Body Composition (inbody)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: 8 weeks of torso stability training with resistance training (3 days / week, 40 minutes of training: 20 minutes of resistance training (with intensity of 70 to 80% 1RM and 6-8 repetitions, 3 sets); torso stability training for 20 minutes with Intensity of 70-80% of a maximum repetition was done in 12 to 8 repetitions and included trunk stability exercises to strengthen the abdominal, lower pelvic, transverse abdominal and diaphragm muscles, as well as trunk stability exercises to strengthen the shoulder girdle, hamstring, serine and all muscles. The pelvic floor muscles were the lower back and straighteners of the dorsal vertebrae.

Category

N/A

2

Description

Control group: 8 weeks of resistance training (3 days / week, 40 minutes of training: with intensity of 70 to 80% 1RM and 6-8 repetitions, 3 sets).

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Azadi Sport Complex, Iran Canoeing-Rowing & Sailing Federation

Full name of responsible person

Alireza Sohrabian

Street address

Azadi sport complex Olampic square

City

Tehran

Province

Tehran

Postal code

1484813111

Phone

+98 21 4473 9135

Email

admin@icf.ir

Web page address

<https://icf.ir>

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University

Full name of responsible person

Hossein Abed Natanzi

Street address

Science and Research Branch, Daneshgah Blvd, Simon Bulivar Blvd

City

Tehran

Province

Tehran

Postal code

۱۴۷۷۸۹۳۸۵۵

Phone

+98 21 4486 5154

Email

Admin@srbiau.ac.ir

Web page address

<https://srbiau.ac.ir>

Grant name

Grant code / Reference number

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

No

Title of funding source

Islamic Azad University Science and Research Branch

Proportion provided by this source

5

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

Faegheh Naghizadeh

Position

Teacher

Latest degree

Master

Other areas of specialty/work

Exercise Physiology

Street address

First Floor, No. 10, Yas Square, Jahan Nama Town,
Tehran-Karaj highway

City

Karaj

Province

Alborz

Postal code

3159846711

Phone

+98 26 3230 5954

Email

faegheh.naghizadeh@srbiau.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity

Islamic Azad University

Full name of responsible person

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Teacher

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Fax**Email**

faegheh.naghizadeh@srbiau.ac.ir

Person responsible for updating data

Contact

Name of organization / entity

Islamic Azad University

Full name of responsible person

Faegheh Naghizadeh

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

Some of the data, including information about the main
consequences, can be shared

When the data will become available and for how long

Access period starts 3 months after printing

To whom data/document is available

Researchers, professors in this field

Under which criteria data/document could be used

The data is unidentifiable individual Will only be
presented if compared to their research data

From where data/document is obtainable

Faegheh Naghizadeh

What processes are involved for a request to access data/document

Describe the request and method of study and the title of
the research in the form of an email and clearly state the
reasons for the need for the data.

Comments

mail to : faegheh.naghizadeh@srbiau.ac.ir