

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

18 Jun 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

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**Postal code**

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**Phone**

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**Email**

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## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**

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**Full name of responsible person**

Faegheh Naghizadeh

**Position**

Teacher

**Latest degree**

Master

**Other areas of specialty/work**

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## Person responsible for updating data

### Contact

**Name of organization / entity**

Islamic Azad University

**Full name of responsible person**

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**Position**

Teacher

**Latest degree**

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**Email**

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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