

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Comparing the Effect of Two Methods of Corrective Movements, Janda's and Saharman's Approaches, in Correcting Lower Crossed Syndrome and Muscle Performance in Non- Athlete females aged 18 to 30.

#### Protocol summary

##### Study aim

Comparing the Effect of Two Methods of Corrective Movements, Janda's and Saharman's Approaches, in Correcting Lower Crossed Syndrome and Muscle Performance in Non- Athlete females aged 18 to 30.

##### Design

A clinical trial with a control group, with parallel groups, without blinding, randomized with the rand function of Excel software, on 75 subjects.

##### Settings and conduct

After the visual assessment of the students in Shahrekord University dormitories, the dormitory prayer room will be used to continue the evaluation of the subjects. Then the Qualified and volunteer people will be randomly placed in three groups (Two intervention groups and one control group). The intervention groups will do their exercises for eight weeks, three sessions a week and assessment will repeat after eight weeks.

##### Participants/Inclusion and exclusion criteria

- Inclusion criteria: Age range 18 to 30 years Voluntary participation and submission of consent Having lumbar lordosis greater than 54 degrees Having anterior pelvic tilt - Exclusion criteria: Having a history of regular exercise Taking certain medications Having surgery in the lumbar and pelvic region The presence of any type of injury in the lower limb during the last six months

##### Intervention groups

Two intervention groups including corrective exercise groups with Janda's approach and corrective exercise with Sohrman's approach and a control group

##### Main outcome variables

lordosis angle anterior pelvic tilt

#### General information

##### Reason for update

##### Acronym

#### IRCT registration information

IRCT registration number: **IRCT20230616058496N1**

Registration date: **2023-08-19, 1402/05/28**

Registration timing: **registered\_while\_recruiting**

Last update: **2023-08-19, 1402/05/28**

Update count: **0**

#### Registration date

2023-08-19, 1402/05/28

#### Registrant information

##### Name

Tahereh Niroomand

##### Name of organization / entity

The University of Shahrekord

##### Country

Iran (Islamic Republic of)

##### Phone

+98 38 3232 4401

##### Email address

t.niroomand@stu.sku.ac.ir

#### Recruitment status

**Recruitment complete**

#### Funding source

#### Expected recruitment start date

2023-08-02, 1402/05/11

#### Expected recruitment end date

2023-10-04, 1402/07/12

#### Actual recruitment start date

empty

#### Actual recruitment end date

empty

#### Trial completion date

empty

#### Scientific title

Comparing the Effect of Two Methods of Corrective

Movements, Janda's and Saharman's Approaches, in Correcting Lower Crossed Syndrome and Muscle Performance in Non- Athlete females aged 18 to 30.

### Public title

Comparing the Effect of Two Methods of Corrective Movements, Janda's and Saharman's Approaches, in Correcting Lower Crossed Syndrome in Non- Athlete females

### Purpose

Treatment

### Inclusion/Exclusion criteria

#### Inclusion criteria:

Age range from 18 to 30 years Voluntary participation and providing consent Having a lumbar lordosis greater than 54 degrees Having an anterior tilt of the pelvis Not having a history of regular exercise Not taking special drugs Not having surgery in the lumbar and pelvic area Not having any Abnormality in the lower limb The absence of any type of injury in the lower limb during the last six months

#### Exclusion criteria:

Any possible injury during exercises Two consecutive absent sessions Absence of more than 3 training sessions Unwillingness to continue cooperation Exacerbation of abnormality and doctor's diagnosis to withdraw from the study

### Age

From **18 years** old to **30 years** old

### Gender

Female

### Phase

N/A

### Groups that have been masked

*No information*

### Sample size

Target sample size: **75**

### Randomization (investigator's opinion)

Randomized

### Randomization description

Randomization method: Block randomization In this study, people with lower crossed syndrome in Shahrekord University girls' dormitories by one block randomization assigned to one of the three treatment groups and receive the intervention related to the same group. Randomization Unit: Individual Randomization tool: Lottery using cards and bowls How to make a random sequence and concealment: First, the names of 60 students with lower crossed syndrome were written on a sheet as a statistical population, and the names were folded and thrown into a bowl to hide them. Two unrelated people were asked to choose 20 cards each, leaving 20 cards in the bowl. The 20 names selected by the first person were chosen as Janda's corrective exercises group, the 20 names selected by the second person were selected as Saharman's corrective exercises group, and the remaining 20 names in the bowl were selected as the control group.

### 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 Shahrekord University

##### Street address

Shahrekord University Leader Blvd

##### City

Shahrekord

##### Province

Chahar-Mahal-va-Bakhtiari

##### Postal code

8818634141

#### Approval date

2023-06-12, 1402/03/22

#### Ethics committee reference number

IR.SKU.REC.1402.011

## Health conditions studied

### 1

#### Description of health condition studied

Lower Crossed Syndrome

#### ICD-10 code

13

#### ICD-10 code description

Diseases of the musculoskeletal system and connective tissue

## Primary outcomes

### 1

#### Description

Lordosis angle

#### Timepoint

Pre-test and post-test

#### Method of measurement

Flexible ruler

### 2

#### Description

hip tilt

#### Timepoint

Pre-test and post-test

#### Method of measurement

tilt meter

## Secondary outcomes

1

### Description

Measurement of muscle function

### Timepoint

Pre-test - post-test

### Method of measurement

goniometer- Chronometer

## Intervention groups

1

### Description

Intervention group: corrective exercise with Janda's approach, It includes sensory-motor exercises, without special equipment, for eight weeks and three sessions per week.

### Category

Rehabilitation

2

### Description

Intervention group:corrective exercise with Saharman's Approaches, It includes stretching and strengthening exercises, without special equipment, for eight weeks and three sessions per week.

### Category

Rehabilitation

3

### Description

Control group: perform their usual daily activities.

### Category

Rehabilitation

## Recruitment centers

1

### Recruitment center

#### Name of recruitment center

Shahrekord University

#### Full name of responsible person

Tahereh Niroomand

#### Street address

Rehbar Boulevard - Shahrekord University

#### City

Sharekord

#### Province

Chahar-Mahal-va-Bakhtiari

#### Postal code

8818634141

#### Phone

+98 38 3232 4401

#### Email

tahereh.niroomand67@gmail.com

## Sponsors / Funding sources

1

### Sponsor

#### Name of organization / entity

Shahrekord University

#### Full name of responsible person

Tahereh Niroomand

#### Street address

Rehbar Boulevard - Shahrekord University

#### City

Shahrekord

#### Province

Chahar-Mahal-va-Bakhtiari

#### Postal code

8818634141

#### Phone

+98 38 3232 4401

#### Email

tahereh.niroomand67@gmail.com

### Grant name

### Grant code / Reference number

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

Yes

### Title of funding source

Shahrekord University

### Proportion provided by this source

50

### 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

shahrekord University

#### Full name of responsible person

tahereh niroomand

#### Position

University student

#### Latest degree

Bachelor

#### Other areas of specialty/work

Sports science

#### Street address

Rehbar Boulevard - Shahrekord University

#### City

Shahrekord

#### Province

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+98 38 3232 4401

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## Person responsible for scientific inquiries

**Contact**

**Name of organization / entity**

Shahrekord University

**Full name of responsible person**

tahereh niroomand

**Position**

University student

**Latest degree**

Bachelor

**Other areas of specialty/work**

Sports science

**Street address**

Rehbar Boulevard - Shahrekord University

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## Person responsible for updating data

**Contact**

**Name of organization / entity**

Shahrekord University

**Full name of responsible person**

tahereh niroomand

**Position**

University student

**Latest degree**

Bachelor

**Other areas of specialty/work**

Sports science

**Street address**

Rehbar Boulevard - Shahrekord University

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**Email**

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## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**

No - There is not a plan to make this available

**Justification/reason for indecision/not sharing IPD**

People's information will remain confidential and I only have the right to publish the results as a group

**Study Protocol**

No - There is not a plan to make this available

**Statistical Analysis Plan**

No - There is not a plan to make this available

**Informed Consent Form**

No - There is not a plan to make this available

**Clinical Study Report**

No - There is not a plan to make this available

**Analytic Code**

No - There is not a plan to make this available

**Data Dictionary**

No - There is not a plan to make this available