Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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

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Iran (Islamic Republic of)

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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
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Rehbar Boulevard - Shahrekord University
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Shahrekord University
Full name of responsible person
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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
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Person responsible for updating data

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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