

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

The effect of selected corrective exercises on the academic achievement of 13 to 15 year old girls with upper cross syndrome

Protocol summary

Study aim

Investigating the effect of selected corrective exercises on the academic progress of 13-15-year-old girls with upper cross syndrome

Design

Clinical trial with two control and experimental groups, without blinding, randomized, on 34 students. A coin toss method was used for randomization for each subject.

Settings and conduct

8 weeks of selected corrective exercise on 17 female students aged 13-15 years old with upper cross syndrome in the sports hall of Poriya Valley in Baharestan city.

Participants/Inclusion and exclusion criteria

Entry conditions: 13-15-year-old students with upper cross syndrome
Non-entry conditions: Students with associated pathological symptoms; history of fractures; surgery and joint diseases of the spine; lumbar hyperlordosis abnormality; cardiorespiratory disorders; pathological pain in the neck and upper limbs; regular weekly exercise; history of membership in sports teams and not completing the training program

Intervention groups

The experimental group receives three sessions per week for 8 weeks and each session lasts 30-60 minutes. The control group is the group that does not receive any of these exercises.

Main outcome variables

Kyphosis, forward head, forward shoulder and academic progress

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230212057398N1**

Registration date: **2023-02-21, 1401/12/02**

Registration timing: **prospective**

Last update: **2023-02-21, 1401/12/02**

Update count: **0**

Registration date

2023-02-21, 1401/12/02

Registrant information

Name

Faeze Bigdeli

Name of organization / entity

The University of Arak

Country

Iran (Islamic Republic of)

Phone

+98 922 371 9905

Email address

msam0bigdeli@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-04-03, 1402/01/14

Expected recruitment end date

2023-05-10, 1402/02/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of selected corrective exercises on the academic achievement of 13 to 15 year old girls with upper cross syndrome

Public title

The effect of selected corrective exercises on the academic achievement of 13 to 15 year old girls with upper cross syndrome

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:
Girls with upper cross syndrome Student 13-15 years old

Exclusion criteria:
Observe any associated pathological symptoms History of fracture Surgery and joint diseases of the spine Lumbar hyperlordosis abnormality Existence of cardio-respiratory disorders The presence of any pathological pain in the neck and upper limbs Having regular weekly exercise Championship record Membership in sports teams

Age
From **13 years** old to **15 years** old

Gender
Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **34**

Randomization (investigator's opinion)
Randomized

Randomization description
With the coordination of Baharestan Education Department, among the first secondary schools in this region, the schools that were willing to cooperate with this research project were separated, among these schools, one school was selected by cluster method, then several classes were randomly selected among the classes of this school, and the initial screening was done to diagnose the upper crossed syndrome. Then using simple randomization, a fair coin was tossed independently for each company. doer; The participants were randomly divided into two groups of 17 people, experimental and control

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 Arak University

Street address

No. 20,Basij Square, Karbala Street, Arak University

City

Arak

Province

Markazi

Postal code

۳۸۴۸۱۷۷۵۸۴

Approval date

2022-03-02, 1400/12/11

Ethics committee reference number

IR.ARAKU.REC.1401.008

Health conditions studied

1

Description of health condition studied

Upper cross syndrome

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Kyphosis, forward head, forward shoulder and academic progress

Timepoint

Before the intervention and 8 weeks after the start of the intervention

Method of measurement

Flexible ruler. Digital camera and AutoCAD software

Secondary outcomes

1

Description

Achievement

Timepoint

Before the intervention and 8 weeks after the start of the intervention

Method of measurement

Grade point average

Intervention groups

1

Description

Intervention group: : Corrective exercises are performed for eight weeks and three sessions per week and each session for 30 to 70 minutes. Each training session includes warming up for 5-10 minutes, strengthening and stretching training program for 20-60 minutes and cooling down for 5-10 minutes.

Category

Prevention

2

Description

Control group: The group that does not receive the exercise program

Category

Other

Country of origin**Type of organization providing the funding**

Academic

Recruitment centers**1****Recruitment center****Name of recruitment center**

Al-Zahra School Health Center

Full name of responsible person

Faeze Bigdeli

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Web page address**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

The University of Arak

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

The University of Arak

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Person responsible for general inquiries**Contact****Name of organization / entity**

The University of Arak

Full name of responsible person

Faeze Bigdeli

Position

University student

Latest degree

Bachelor

Other areas of specialty/work

Sport Medicine

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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

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available