

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Comparison of the Effect of Functional Corrective Exercises and Corrective Games on Upper Crossed Syndrome in Boys 10-13 Years Old

#### Protocol summary

##### Study aim

Comparison of the Effect of Functional Corrective Exercises and Corrective Games on Upper Crossed Syndrome in Boys 10-13 Years Old

##### Design

This will be a clinical trial with a pretest-posttest design. Thirty-six samples of male students with Upper Crossed Syndrome were purposefully selected and randomly divided into three equal groups of 12: two intervention groups, corrective movements, corrective games, and one control group.

##### Settings and conduct

The research protocol will be conducted in Silvana City schools. The first group will perform Functional Corrective Exercises for eight weeks and the second group will perform corrective games during the same period. The control group will not perform any exercise. Before and after exercise intervention, the amount of Forward Head and Round Shoulder angles will be evaluated by lateral view photography and the amount of Kyphosis by a Flexible Ruler.

##### Participants/Inclusion and exclusion criteria

Inclusion Criteria: 1- Male students between the ages of 10 and 13 who have not reached puberty. 2- Having three anomalies of Forward Head, Round shoulder, Kyphosis Exclusion Criteria: 1-Participants' dissatisfaction with the exercises 2- History of fractures and other diseases 3- People with BMI less than 18 and greater than 35

##### Intervention groups

Intervention groups: 1- Functional corrective training group, which will receive corrective exercises 2- Corrective Games group, which will receive corrective games with practice approach. Control group: A group that will not perform any exercises.

##### Main outcome variables

Forward Head rate using Photogrammetry before and after intervention exercises Round Shoulder rate using Photogrammetry before and after intervention exercise

Kyphosis rate using Flexible Ruler before and after the intervention exercise Other variables to be measured include: Age, Height, Weight, Body Mass Index

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20200125046250N1**

Registration date: **2020-02-09, 1398/11/20**

Registration timing: **retrospective**

Last update: **2020-02-09, 1398/11/20**

Update count: **0**

##### Registration date

2020-02-09, 1398/11/20

##### Registrant information

##### Name

Sajad Roshani

##### Name of organization / entity

Urmia University

##### Country

Iran (Islamic Republic of)

##### Phone

+98 44 3345 8110

##### Email address

srowshani@yahoo.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2019-09-23, 1398/07/01

##### Expected recruitment end date

2019-11-05, 1398/08/14

##### Actual recruitment start date

2019-10-06, 1398/07/14

**Actual recruitment end date**

2019-11-20, 1398/08/29

**Trial completion date**

2020-01-19, 1398/10/29

**Scientific title**

Comparison of the Effect of Functional Corrective Exercises and Corrective Games on Upper Crossed Syndrome in Boys 10-13 Years Old

**Public title**

Comparison of the Effect of Functional Corrective Exercises and Corrective Games on Upper Crossed Syndrome

**Purpose**

Supportive

**Inclusion/Exclusion criteria****Inclusion criteria:**

Male students between the ages of 10 and 13 who have not reached puberty. Having three abnormalities forward head at an angle of greater than or equal to 46 degrees, kyphosis greater than 40 degrees, and forward shoulder with an angle of greater than or equal to 52 degrees.

**Exclusion criteria:**

Participants' dissatisfaction with the exercises History of fractures and other diseases Individuals with BMI less than 18 and greater than 35

**Age**

From **10 years** old to **13 years** old

**Gender**

Male

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **33**

Actual sample size reached: **36**

**Randomization (investigator's opinion)**

Not randomized

**Randomization description****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**

Iran National Committee for Ethics in Biomedical Research

**Street address**

Urmia University

**City**

Urmia

**Province**

West Azarbaijan

**Postal code**

5715794953

**Approval date**

2020-01-14, 1398/10/24

**Ethics committee reference number**

IR.URMIA.REC.1398.001

**Health conditions studied****1****Description of health condition studied**

Upper Crossed Syndrome

**ICD-10 code****ICD-10 code description****Primary outcomes****1****Description**

Assessment of three abnormalities (Forward Head, Round Shoulder, Kyphosis) that are referred to as Upper Crossed Syndrome.

**Timepoint**

Week 1, Week 8

**Method of measurement**

Forward head and Round shoulder were measured by lateral view photography and the amount of kyphosis with flexible ruler

**Secondary outcomes**

empty

**Intervention groups****1****Description**

1- Intervention group: The group will consist of 12 male students aged 10-13 years who all have Upper Crossed Syndrome. The group will perform researcher-made functional corrective exercises. Functional corrective exercises program will be eight weeks, three sessions per week and 60 minutes per session.

**Category**

Rehabilitation

**2****Description**

2- Intervention group: The group will consist of 12 male students aged 10-13 years who all have Upper Crossed Syndrome. The group will perform researcher-made corrective games exercises. Corrective games program

will be eight weeks, three sessions per week and 60 minutes per session.

**Category**

Rehabilitation

**3**

**Description**

3- Control group: The group will consist of 12 male students aged 10-13 years who all have Upper Crossed Syndrome. Students in this group do not receive any therapeutic exercise or exercise.

**Category**

Rehabilitation

**Recruitment centers**

**1**

**Recruitment center**

**Name of recruitment center**

Schools of the Silvana Department of Education

**Full name of responsible person**

Vali Shoghi

**Street address**

Razhan-Silvans

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5744157855

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hosinavrese68@gmail.com

**Sponsors / Funding sources**

**1**

**Sponsor**

**Name of organization / entity**

Urmia University

**Full name of responsible person**

Narmin Ghani zadeh Hesar

**Street address**

Road nazlo, Urmia University, Faculty of Physical Education and Sport Sciences

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5756151818

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+98 44 3275 2741

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info@urmia.ac.ir

**Grant name**

**Grant code / Reference number**

**Is the source of funding the same sponsor**

**organization/entity?**

Yes

**Title of funding source**

Urmia University

**Proportion provided by this source**

100

**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**

Urmia university

**Full name of responsible person**

Sajad Roshani

**Position**

Assistant Professor, Department of Exercise Physiology and Corrective Exercises

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Corrective Exercise & Sport Injury

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**Person responsible for scientific inquiries**

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**Name of organization / entity**

Urmia University

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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**

The purpose of this study was to prevent and treat postural musculoskeletal disorders. This project is applicable to sports medicine researchers and students.

**When the data will become available and for how long**

Next month the project is defensible. Data can be shared after defense through legal channels.

**To whom data/document is available**

After defending the thesis, universities and students can access the project.

**Under which criteria data/document could be used**

For use by future researchers in this field and by the use of sports medicine coaches and specialists

**From where data/document is obtainable**

Graduate of Urmia University

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

Through graduate studies at Urmia University and University Central Library

**Comments****Person responsible for updating data****Contact****Name of organization / entity**

Urmia University

**Full name of responsible person**

Sajad Roshani

**Position**

Assistant Professor, Department of Exercise Physiology and Corrective Exercises, Faculty of Sport Sc

**Latest degree**

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**Other areas of specialty/work**

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