

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### The effect of corrective micro-exercise on kyphosis arch of mail students with hyper kyphosis, a randomized controlled trial

#### Protocol summary

##### Study aim

The purpose of the present study is to investigate musculoskeletal and motor disorders in children and use corrective micro-exercises to improve them and measure the effectiveness of these exercises.

##### Design

A randomized, open-label, parallel-group clinical trial with an exercise and control group on 38 patients.

##### Settings and conduct

This research is conducted on children's musculoskeletal health and its improvement. The research location is inside the school and the implementation protocol is as follows: for 8 weeks and three exercises per week, exercises will be performed inside the classroom for 10 minutes at the end of the class.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: The subjects must be between 9 and 12 years old. The subjects must be elementary school students. The subjects must be students in Tehran. The subjects must have hyperkyphosis. Exclusion criteria: The subjects must have disability in the upper or lower extremities. The subjects must have a history of spinal surgery.

##### Intervention groups

The present study will have a two-group design including a control group and a micro-correctional training group with a pre-test and post-test process. The training group will perform the training protocol for 8 weeks, 3 days a week, each session lasting 10 minutes. The control group will not receive any intervention.

##### Main outcome variables

The final result of this project will help specialists, considering the decrease in children's activity levels, to reduce children's levels of inactivity using micro exercises and work towards improving children's physical condition.

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20251110067945N1**

Registration date: **2026-05-09, 1405/02/19**

Registration timing: **prospective**

Last update: **2026-05-09, 1405/02/19**

Update count: **0**

##### Registration date

2026-05-09, 1405/02/19

##### Registrant information

##### Name

Fatemeh Pirataei

##### Name of organization / entity

Shahid beheshti university Faculty sports and health sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 21 2990 5847

##### Email address

pirataeifatemeh1994@gmail.com

##### Recruitment status

**recruiting**

##### Funding source

##### Expected recruitment start date

2026-05-10, 1405/02/20

##### Expected recruitment end date

2026-07-15, 1405/04/24

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

**Scientific title**

The effect of corrective micro-exercise on kyphosis arch of mail students with hyper kyphosis, a randomized controlled trial

**Public title**

the effect of corrective micro-exercise on kyphosis arch of mail students with hyper kyphosis

**Purpose**

Supportive

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

Subjects should be between the ages of 9 and 12 years old. Subjects should not have disabilities in the upper or lower limbs The subjects are elementary school students. The subjects were students from Tehran. Subjects have hyperkyphosis.

**Exclusion criteria:****Age**

From **9 years** old to **12 years** old

**Gender**

Male

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **38**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Individuals who met the inclusion criteria were randomly assigned to one of two micro-corrective exercises groups and a control group. Randomization was performed using a cluster randomization method.

**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 Shahid Beheshti University

**Street address**

Evin, Shahid Shahriari Square, Shahid Beheshti University, Presidency Building, Research Vice-Chancellor, Third Floor, Office of the Ethics in Biological Research Working Group

**City**

Tehran

**Province**

Tehran

**Postal code**

1658953571

**Approval date**

2025-09-19, 1404/06/28

**Ethics committee reference number**

IR.SBU.REC.1404.174

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

Kyphosis condition

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

The rate of improvement in kyphosis

**Timepoint**

Kyphosis arch measurement at the beginning of the study and after 8 weeks of training.

**Method of measurement**

Spinal Mouse Device

**Secondary outcomes**

empty

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

Intervention group: This group will perform micro-corrective exercises in the classroom three days a week, each session lasting ten minutes.

**Category**

Rehabilitation

**2****Description**

Control group: This group will not receive any intervention.

**Category**

N/A

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

دبستان پسرانه فرمانام

**Full name of responsible person**

Nastaran darabi

**Street address**

Yazdankhah Street, Farnam Elementary School

**City**

Shahr-e-rey

**Province**

Tehran

**Postal code**

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**Phone**

+98 21 5590 1522

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pirataeifatemeh1994@gmail.com

**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Shahid Beheshti University

**Full name of responsible person**

fatemeh pirataei

**Street address**

No. 5, Beigi Alley, Hadi Saei Square

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rey

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**Phone**

+98 912 070 4726

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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**

Shahid Beheshti University

**Proportion provided by this source**

100

**Public or private sector**

Private

**Domestic or foreign origin**

Domestic

**Category of foreign source of funding**

empty

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

Persons

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

Shahid Beheshti University

**Full name of responsible person**

fatemeh pirataei

**Position**

student

**Latest degree**

Master

**Other areas of specialty/work**

Sports pathology and corrective exercises

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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**

Not applicable

**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**

Not applicable

**Data Dictionary**

Not applicable