

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jul 2026

Effectiveness of sport exercises with ergonomic intervention on the reduction of upper extremity musculoskeletal disorders and upper cross syndrome of teachers

Protocol summary

Study aim

The effect of national academy of sports medicine training with ergonomic intervention on upper limb musculoskeletal disorders and upper cross syndrome in teachers

Design

The study is semi-experimental. The groups included 2 groups (National Academy of Sports Medicine Exercises with Ergonomic Intervention group and the control group).

Settings and conduct

After conducting the necessary coordination with the administrative and research management of the education, the researchers deployed for the distribution of the questionnaire and simultaneously taking the New York test to identify people, ergonomic interventions and corrective movements in the educational reform hall.

Participants/Inclusion and exclusion criteria

30 non-athletic teacher Practice Entry Criteria: 1. At least one year of work experience 2. Having upper cross syndrome 3. Having musculoskeletal disorders 4. Not having exercise Exit Exercise Criteria: 1. history of surgery or fracture 2. acute rheumatoid arthritis 3. Osteoporosis (osteoporosis) 4. athletic activities

Intervention groups

Exercise Plan The prescribed adjustment plan was designed for 12 weeks, three sessions per each week, and each session lasting from 45 to 60 minutes. Ergonomic Intervention These interventions were selected based on the protective and health directives of the Ministry of Labor considering the bodily conditions, muscular strength, and body movements

Main outcome variables

1. Musculoskeletal disorders of the neck, shoulder and back 2. Forward head angle 3. Forward shoulder angle 4. Hyperkyphosis angle

General information

Reason for update

Acronym

NASM

IRCT registration information

IRCT registration number: **IRCT20180725040585N1**

Registration date: **2019-01-08, 1397/10/18**

Registration timing: **retrospective**

Last update: **2019-01-08, 1397/10/18**

Update count: **0**

Registration date

2019-01-08, 1397/10/18

Registrant information

Name

raziieh karimian

Name of organization / entity

The University of Isfahan

Country

Iran (Islamic Republic of)

Phone

+98 31 3793 2195

Email address

r.karimian@spr.ui.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-04-21, 1397/02/01

Expected recruitment end date

2018-05-22, 1397/03/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effectiveness of sport exercises with ergonomic intervention on the reduction of upper extremity musculoskeletal disorders and upper cross syndrome of teachers

Public title

The effect of national academy of sports medicine training with ergonomic intervention on upper limb musculoskeletal disorders and upper cross syndrome in teachers

Purpose

Prevention

Inclusion/Exclusion criteria**Inclusion criteria:**

having musculoskeletal disorders having upper cross syndrome

Exclusion criteria:

history of surgery or fracture joint diseases of the spine osteoporosis acute rheumatoid arthritis Congestive Heart Failure athletic activities

Age

From **22 years** old to **65 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **30**

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**

Ethics committee of Isfahan University of Medical Sciences

Street address

Isfahan University, Isfahan

City

Isfahan

Province

Isfahan

Postal code

81174673341

Approval date

2018-08-27, 1397/06/05

Ethics committee reference number

IR.UI.REC.1397.104

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

musculoskeletal disorders

ICD-10 code

M62.9

ICD-10 code description

Disorder of muscle, unspecified

Primary outcomes**1****Description**

The amount of musculoskeletal disorders of the neck, shoulder and back

Timepoint

Before intervention and 3 months after intervention

Method of measurement

Nordic Questionnaire and New York Test

2**Description**

Forward head angle

Timepoint

Before intervention and 3 months after intervention

Method of measurement

New York Test and UCS Software

3**Description**

Forward shoulder angle

Timepoint

Before intervention and 3 months after intervention

Method of measurement

New York Test and UCS Software

4**Description**

Hyperkyphosis angle

Timepoint

Before intervention and 3 months after intervention

Method of measurement

New York Test and UCS Software

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Receive NASM exercises and ergonomic interventions

Category

Prevention

2

Description

Control group: Doing daily and job activities

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Fasa Education

Full name of responsible person

Dr Aminnejad

Street address

Mehmansara Blvd, Fasa Education

City

Fasa

Province

Fars

Postal code

7461935144

Phone

+98 71 5331 6004

Email

r.karimian@spr.ui.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University of Isfahan

Full name of responsible person

Dr Nader Rahnama

Street address

Isfahan University

City

Isfahan

Province

Isfahan

Postal code

۸۱۷۴۶۷۳۴۴۱

Phone

+98 31 3793 2195

Email

n.rahnama@spr.ui.ac.ir

Web page address

<http://spr.ui.ac.ir/~n.rahnama>

Grant name

Grant code / Reference number

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

Yes

Title of funding source

The University of Isfahan

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

The University of Isfahan

Full name of responsible person

Razieh Karimian

Position

Phd student

Latest degree

Master

Other areas of specialty/work

Corrective exercise

Street address

University of Isfahan

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Isfahan

Province

Isfahan

Postal code

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Phone

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Fax

Email

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7461935144

Phone

+98 31 3793 2195

Fax**Email**

r.karimian@spr.ui.ac.ir

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r.karimian@spr.ui.ac.ir

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

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

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

Data on independent and dependent variables

When the data will become available and for how long

After publishing the results

To whom data/document is available

Researchers and teachers

Under which criteria data/document could be used

Research

From where data/document is obtainable

karimianrazieh@yahoo.com

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

After sending an email

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

The University of Isfahan

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