Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 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

razieh 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
Isfehan
Postal code
۸۱۷۴۶۷۳۴۴۱
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
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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
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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
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Person responsible for updating data

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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
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