Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Does Corrective exercises Influence the Performance, Posture, range of motion and shoulder pain of Elite Front crawl Swimmers with Upper Crossed Syndrome?

Protocol summary

Study aim

The effect of eight weeks of corrective movement program on performance, body alignment, range of motion and shoulder pain in professional swimmers with upper cruciate syndrome.

Design

Clinical trial with an intervention group and a control group; With factorial groups, without blinding, simple randomization, zero phase on 30 swimmers with upper cruciate syndrome, which rand function of Excel software was used for randomization

Settings and conduct

The purpose of performing these exercises is to improve the posture and shoulder pain of swimmers with upper impingement syndrome. These exercises will be performed in the Nikian swimming pool in Abhar city. In this research, to measure the forward shoulder posture and forward head posturefrom photogrammetry, the degree of kyphosis from a flexible ruler, Pain using a visual measurement scale, speed measurement using a manual timer, glenohumeral joint range of motion measurement using a goniometer will be measured.

Participants/Inclusion and exclusion criteria

forward head posture more than 46 degrees; forward shoulder posture more than 52 degrees; kyphosis more than 40 degrees; professional male swimmers aged 20 to 40; Having mild to moderate pain in the shoulder joint based on the person's self-report; having at least 3 regular training sessions per week; Having a history of participating in swimming for 3 years

Intervention groups

The intervention of the current research is corrective exercises designed based on previous related articles, these exercises will be performed for eight weeks, three training sessions per week and each training session will last 30-40 minutes. and continue their daily exercises

Main outcome variables

Improvement of forward head posture, kyphosis and forward shoulder posture, reduction of shoulder pain, 50m swimming record

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20240306061185N1**
Registration date: **2024-03-08, 1402/12/18**
Registration timing: **prospective**

Last update: **2024-03-08, 1402/12/18**
Update count: **0**

Registration date

2024-03-08, 1402/12/18

Registrant information

Name

Hossein Rezaei

Name of organization / entity

The University of Shahid Beheshti

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-04-13, 1403/01/25

Expected recruitment end date

2024-04-18, 1403/01/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Does Corrective exercises Influence the Performance, Posture, range of motion and shoulder pain of Elite Front crawl Swimmers with Upper Crossed Syndrome?

Public title

The effect of corrective exercises on upper crossed syndrome in swimmers

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Head forward posture more than 46 degrees Shoulder forward posture more than 52 degrees Kyphosis more than 40 degrees Professional male swimmers in the age range of 20 to 40 years Having mild to moderate pain in the shoulder joint based on the person's self-report Having at least 3 regular training sessions per week No history of spine or upper extremity surgery Having 3 years of swimming experience

Exclusion criteria:

Older and younger ages Unwillingness to participate in research Having damage to the organs

Age

From **20 years** old to **40 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Individual simple randomization؛ Coincidence tools: rand function of Excel

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 Sport Sciences Research Institute

Street address

Mir Emad Ave., Tehran

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Tehran

Postal code

1411713116

Approval date

2024-03-05, 1402/12/15

Ethics committee reference number

IR.SSRC.REC.1402.294

Health conditions studied

1

Description of health condition studied

Upper Crossed Syndrome, shoulder pain

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Upper Crossed Syndrome

Timepoint

Before the intervention and eight weeks later

Method of measurement

Photogrammetry, Flexible ruler

2

Description

shoulder pain

Timepoint

Before the intervention and eight weeks later

Method of measurement

Visual Analogue Scale

Secondary outcomes

1

Description

Performance

Timepoint

Before the intervention and eight weeks later

Method of measurement

chronometer

Intervention groups

1

Description

Intervention group: Corrective exercises

Category

Rehabilitation

2

Description

Control group: Control

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Sports Science Laboratory of Shahid Beheshti University

Full name of responsible person

Sirus Sheikhi

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University of Shahid Beheshti

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 Shahid Beheshti

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 Shahid Beheshti

Full name of responsible person

Hossein Rezaei

Position

Masters student

Latest degree

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Other areas of specialty/work

Sport injury 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
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