

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

22 Jun 2026

### The effect of 8 weeks of training on head and neck stability in Tsuki punch after neck muscle fatigue

#### Protocol summary

##### Study aim

The aim of this study is to examine the effect of training on head and neck stability against Tsuki punch during the neck muscle fatigue in male athletes.

##### Design

Random assignment of two groups with intervention in the experimental group and without intervention in the control group in 24 youth male karate athletes, pre-test and post-test in both groups (before and after intervention in the experimental group) with simple randomization method.

##### Settings and conduct

All subjects participate in the pre-test. Then, the control group subjects continue to practice their practice while the experimental group participates in the proprioception training program for 8 weeks. The post-test will carry out like the pre-test. Blinding will be done for subjects only.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: Age range 18 to 25 years; Having at least 5 years of karate history; Participation in the Karate Premier League; Signature of voluntary consent.

Exclusion criteria: History of musculoskeletal and neuropathic pain; History of surgery; Temporomandibular disorder; Vision problems; Hearing impairment; Taking medication for a long time; Cardiorespiratory problem; Inner ear infection; Congenital anomalies.

##### Intervention groups

Intervention group: The intervention group will conduct eight weeks of proprioception training after the pre-test. The specific factor included joint position sense training with and without visual feedback, movement path exercises, and force training, and the non-specific factor included coordination exercises, muscle function, and exercise on unstable surfaces. Exercises will run 3 sessions a week and each session will run for 30 minutes. Control group: The control group will continue the usual training without performing an intervention program.

##### Main outcome variables

Displacement and acceleration of head and neck

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20190505043474N1**

Registration date: **2020-02-25, 1398/12/06**

Registration timing: **retrospective**

Last update: **2020-02-25, 1398/12/06**

Update count: **0**

##### Registration date

2020-02-25, 1398/12/06

##### Registrant information

##### Name

Nadjmeh Afhami

##### Name of organization / entity

University of sirjan

##### Country

Iran (Islamic Republic of)

##### Phone

+98 34 3251 4486

##### Email address

n.afhami@sirjantech.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2019-11-22, 1398/09/01

##### Expected recruitment end date

2019-12-06, 1398/09/15

##### Actual recruitment start date

2019-11-22, 1398/09/01

##### Actual recruitment end date

2019-12-06, 1398/09/15

**Trial completion date**

2020-03-20, 1399/01/01

**Scientific title**

The effect of 8 weeks of training on head and neck stability in Tsuki punch after neck muscle fatigue

**Public title**

The effect of training on stability

**Purpose**

Prevention

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

Age range 18 to 25 years Having at least 5 years of karate history Participation in the Karate Premier League Signature of voluntary consent

**Exclusion criteria:**

History of musculoskeletal and neuropathic pain in the head, neck, spinal cord and upper extremity History of surgery in the head, neck, spinal column, shoulder girdle and lower extremity Temporomandibular disorder Vision problems that are not corrected with glasses Hearing impairment Taking medication for a long time Cardio respiratory problem in the last 5 years Inner ear infection Congenital anomalies and disorders

**Age**

From **18 years** old to **25 years** old

**Gender**

Male

**Phase**

N/A

**Groups that have been masked**

- Participant

**Sample size**

Target sample size: **24**

Actual sample size reached: **24**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

The randomization method will be simple randomization. The flip the coin method will be used to create a random sequence. The experiment group is given heads and the control group is tails and the number of coins will be thrown based on the sample size. The sealed envelope method will then be used to allocation concealment. The envelopes will be prepared in the sample size and the result of each coin flipping will be written on a sheet and put in an envelope and numbered behind the envelope to preserve the randomization sequence, finally, the envelope will seal. Envelopes are opened based on the order of entry of the subjects and the assigned group is revealed. The person doing the randomization will be different from the other examiners.

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

Blinding will be done for subjects only. They will be informed about the process and the various stages of conducting research and agreeing to be present in the research, but they will remain unaware of the content of the training program and the probable outcome of the

investigation.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Ethics committee of Sirjan Faculty of Medical Sciences

**Street address**

Sirjan Faculty of Medical Sciences, Next to Parks of Traffic, Jamaledin Asad Abadi Blvd, Sirjan, Iran.

**City**

Sirjan

**Province**

Kerman

**Postal code**

7616916338

**Approval date**

2020-01-12, 1398/10/22

**Ethics committee reference number**

IR.SIRUMS.REC.1398.002

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

Neck and Cervical in Karate

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

Head and neck stability

**Timepoint**

Pre intervention, after 8 weeks intervention

**Method of measurement**

Motion analysis system

**Secondary outcomes**

empty

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

"Intervention group: The intervention group will conduct

eight weeks of proprioception training after the pre-test. The specific factor included joint position sense training with and without visual feedback, movement path exercises, and force training, and the non-specific factor included coordination exercises, muscle function, and exercise on unstable surfaces. Exercises will run 3 sessions a week and each session will run for 30 minutes."

**Category**

Prevention

**2****Description**

"Control group: The control group will continue the usual training without performing an intervention program."

**Category**

Other

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

Shahid Bahonar University

**Full name of responsible person**

Nadjmeh Afhami

**Street address**

Shahid Bahonar University, Research Square, Imam Khomeini Highway, Kerman, Iran.

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7616913439

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+98 34 3325 7141

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chancellor@uk.ac.ir

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

The Sirjan University of Technology

**Full name of responsible person**

Ghasem Mirhossein Khani

**Street address**

Physical Education Unit, Sirjan University of Technology, 1th Street, Baft road, Sirjan, Iran.

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7813733385

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+98 34 4152 2000

**Email**

gh.mirhosseini@sirjantech.ac.ir

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

No

**Title of funding source**

The Sirjan University of Technology

**Proportion provided by this source**

20

**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 Sirjan University of Technology

**Full name of responsible person**

Nadjmeh afhami

**Position**

Associate professor

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Prevention of Sport Injuries

**Street address**

Physical Education Unit, Sirjan University of Technology, 1th Street, Baft road, Sirjan, Iran.

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

The Sirjan University of Technology

**Full name of responsible person**

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**Position**

Associate professor

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

The Sirjan University of Technology

**Full name of responsible person**

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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**

Not applicable

**Analytic Code**

Not applicable

**Data Dictionary**

Not applicable

**Title and more details about the data/document**

The total potential data can be shared after unidentifiable individuals.

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

Start the access period 3 months after printing the results.

**To whom data/document is available**

Data will be available to researchers and students, athletes and coaches.

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

There are no conditions for using data or documentation.

**From where data/document is obtainable**

Nadjmeh Afhami via the contact number 00989131999272 and Email n.afhami@sirjantech.ac.ir.

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

Up to one month after sending the request to n.afhami@sirjantech.ac.ir.

**Comments**