

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 May 2026

The effect of ergonomics training on sleep quality and musculoskeletal disorders of police command line staff

Protocol summary

Study aim

Determining the effect of ergonomics training on sleep quality and musculoskeletal disorders of police command staff.

Design

Intervention study with two groups of intervention and control, on 50 male participants with disorders

Settings and conduct

This study will be carried out in the disciplinary command headquarters equipped with a conference hall for holding theoretical meetings and a sports hall for holding practical meetings.

Participants/Inclusion and exclusion criteria

Inclusion criteria: people working shifts, having 5 years of military service, employees with sleep disorders and musculoskeletal disorders, no history and mental illness, mental disorders, depression using medical records, minimum and maximum age 25 and 55 years Exclusion criteria: having a history of surgery or bone fractures in the spine and upper and lower limbs, having congenital anomalies especially in the spine, having osteoporosis, persistent and progressive non-mechanical back pain, taking sleeping pills and sedatives on a daily basis or Weekly, participation in another intervention program simultaneously or in parallel with the intervention, the presence of physical illnesses (cardiovascular disease, asthma and epilepsy) or chronic psychiatry, inability to perform the recommended exercises, rapid weight loss of more than ten percent Weight in the last three months, smoking history

Intervention groups

Before the intervention, demographic questionnaire, Nordic and sleep quality questionnaire are completed by individuals in two groups, the intervention group undergoes theoretical and practical training. But training will not be given to the control group. After the intervention, the questionnaires will be given to both groups again. The control group will also be trained to maintain ethics.

Main outcome variables

Musculoskeletal Disorders, sleep quality

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180902040923N4**

Registration date: **2022-06-25, 1401/04/04**

Registration timing: **retrospective**

Last update: **2022-06-25, 1401/04/04**

Update count: **0**

Registration date

2022-06-25, 1401/04/04

Registrant information

Name

Mohamad Sadegh Ghasemi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 8670 4839

Email address

ghasemi.m@iums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-02-19, 1400/11/30

Expected recruitment end date

2022-03-21, 1401/01/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of ergonomics training on sleep quality and musculoskeletal disorders of police command line staff

Public title

Ergonomics training on sleep quality and musculoskeletal disorders

Purpose

Prevention

Inclusion/Exclusion criteria**Inclusion criteria:**

People work shifts Having 5 years of military experience Employees with sleep disorders and musculoskeletal disorders No mental illness, mental disorders, depression using medical records People with a minimum age of 25 years and a maximum age of 55 years

Exclusion criteria:

Have a history of surgery or bone fractures in the spine and upper and lower limbs Having congenital anomalies, especially in the spine; Having osteoporosis Fixed and progressive non-mechanical back pain Take sleeping pills and sedatives daily or weekly Participate in another intervention program concurrently or in parallel with the intervention Existence of physical illnesses (cardiovascular diseases, asthma and epilepsy) or chronic psychiatry simultaneously with sleep disorders and musculoskeletal disorders Inability to perform the recommended sports movements Rapid weight loss of more than ten percent in the last three months Cigarette smoking history

Age

From **25 years** old to **55 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **50**

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 Iran University of Medical Sciences

Street address

Iran University of Medical Sciences, Hemmat Highway next to Milad Tower, Tehran

City

Tehran

Province

Tehran

Postal code

۱۴۳۹۶۱۴۵۳۵

Approval date

2021-05-21, 1400/02/31

Ethics committee reference number

IR.IUMS.REC.1400.184

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

MUSCULOSKELETAL DISORDER

ICD-10 code

R29

ICD-10 code description

Other symptoms and signs involving the nervous and musculoskeletal systems

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

Musculoskeletal Disorder

Timepoint

Completing the questionnaire (before the intervention), holding theoretical and practical training classes (performing the intervention), completing the questionnaire (one month after the intervention)

Method of measurement

Nordic Musculoskeletal Questionnaire

2**Description**

Sleep Quality

Timepoint

Completing the questionnaire (before the intervention), holding theoretical and practical training classes (performing the intervention), completing the questionnaire (after the intervention)

Method of measurement

Pittsburg Sleep Quality Index

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Completion of demographic questionnaires, Nordic musculoskeletal disorders, Petersburg quality of sleep before and after the intervention, three theoretical sessions (ergonomics training, sleep hygiene training, teaching the correct principles of physical activity and general training framework) by relevant experts and 8 Week (twice a week, one hour session) Performing corrective movements by a sports pathologist.

Category

Other

2

Description

Control group: Completion of demographic questionnaires, Nordic musculoskeletal disorders, Petersburg quality of sleep before and after the intervention, control group did not receive educational intervention and corrective movements. However, after the final completion of the intervention to maintain ethics, the desired training for the intervention group will be taught to this group.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Mazandaran Disciplinary Command

Full name of responsible person

Mohammad Sadegh Ghasemi

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person

Hossein Keyvani

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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

Iran University of Medical Sciences

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

Iran University of Medical Sciences

Full name of responsible person

Mohammad Sadegh Ghasemi

Position

PhD in Biomechanics

Latest degree

Ph.D.

Other areas of specialty/work

Ergonomics

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Iran University of Medical Sciences

Full name of responsible person

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Position

Associate professor

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Ph.D.

Other areas of specialty/work

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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