Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 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
۱۴۴۹۶۱۴۵۳۵
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

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

City
Tehran

Province
Tehran

Postal code
1449614535

Phone
+98 21 8670 4839

Email
ghasemi.m@ums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Iran University of Medical Sciences

Full name of responsible person
Hossein Keyvani

Street address
Iran University of Medical Sciences- Hemmat Highway next to Milad Tower -Tehran

City
Tehran

Province
Tehran

Postal code
1449614535

Phone
+98 21 8670 2504

Fax
+98 21 8862 2703

Email
keyvani.h@ums.ac.ir

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

Street address
Ergonomic Department, School of Public Health, Iran University of Medical Sciences, Hemat Express way, Tehran

City
Tehran

Province
Tehran

Postal code
1449614535

Phone
+98 21 8670 4839

Email
ghasemi.m@ums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
Iran University of Medical Sciences

Full name of responsible person
Mohammad Sadegh Ghasemi

Position
Associate professor

Latest degree
Ph.D.

Other areas of specialty/work
Ergonomics

Street address
Iran University of Medical Sciences, Shahid Hemmat Highway, Tehran

City
Tehran

Province
Tehran

Postal code
1449614535

Phone
+98 21 8670 4839

Email
ghasemi.m@iums.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
Iran University of Medical Sciences

Full name of responsible person
Mohammad Sadegh Ghasemi

Position
Associate professor

Latest degree
Ph.D.

Other areas of specialty/work
Ergonomics

Street address
Department of Ergonomics, School of Health, Iran University of Medical Sciences, Hemmat Highway, Tehran

City
Tehran

Province
Tehran

Postal code
1449614535

Phone
+98 21 8670 4839

Email
ghasemi.m@iums.ac.ir

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