Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

The effect of a course of sensorimotor training on the posture of the lumbar spine, pain and proprioception of military personnel with non-specific low back pain

Protocol summary

Study aim
Examining the effect of a period of sensory-motor exercises on the lumbar spine status, pain, and proprioception of military personnel suffering from non-specific low back pain.

Design
30 people were selected by the G-Power software from among the military personnel of Urmia County, based on the entry conditions of the research, in a targeted manner, 30 individuals with chronic non-specific low back pain were chosen and be divided into two groups: sensory-motor exercises and control (each group consisting of 15 people).

Settings and conduct
This research is in the field of rehabilitation, conducted in the city of Urmia, with the population being military personnel. Type of blinding: blinding is not conducted in this study.

Participants/Inclusion and exclusion criteria
Entry criteria included: confirmation by a specialist physician of non-specific chronic low back pain, achieving a score higher than 4 on the Roland Morris screening questionnaire (28), having continuous pain for at least 3 months, male military personnel with a work history of at least 3 years and an age range of 20 to 50 years, and a body mass index between 20 to 28 (31). Exit criteria included: a history of any fractures or dislocations, a history of back surgery, having other underlying issues such as orthopedic, rheumatologic problems, infections, or direct injuries to the spine, having severe and acute pain (more than 8 on the VAS scale), (31) and irregular participation in the exercise program.

Intervention groups
The experimental group received a sensory-motor sports program for 8 weeks, with 3 one-hour sessions each week. The control group did not receive this program and only engaged in their daily and work activities.

Main outcome variables
Proprioception, pain level, lumbar spine curve

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20250107064312N1**
Registration date: **2025-01-15, 1403/10/26**
Registration timing: **prospective**

Last update: **2025-01-15, 1403/10/26**
Update count: **0**

Registration date
2025-01-15, 1403/10/26

Registrant information
Name
Yusef Asadi
Name of organization / entity
Urmia University in Iran
Country
Iran (Islamic Republic of)
Phone
+98 914 411 0914
Email address
st_y.asadi@urmia.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2025-02-19, 1403/12/01

Expected recruitment end date
2025-04-21, 1404/02/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of a course of sensorimotor training on the posture of the lumbar spine, pain and proprioception of military personnel with non-specific low back pain

Public title

The effect of a course of sensorimotor training on the posture of the lumbar spine, pain and proprioception of military personnel with non-specific low back pain

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Military personnel with a minimum of 3 years of work experience. Specialist doctor's confirmation of nonspecific chronic low back pain. Achieving a score higher than 4 on the Roland Morris Screening Questionnaire

Exclusion criteria:

Having a history of any fractures or dislocations having a history of back surgery Having other underlying problems such as orthopedic issues, rheumatology, infections, or direct injuries in the spine. Having severe and acute pain (more than 8 on the VAS scale)

Age

From **20 years** old to **50 years** old

Gender

Male

Phase

N/A

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

Research ethics committee of Urmia University

Street address

11 km, Sero Road

City

Urmia

Province

West Azarbaijan

Postal code

5756151818

Approval date

2024-02-24, 1402/12/05

Ethics committee reference number

IR.URMIA.REC.1402.031

Health conditions studied

1

Description of health condition studied

Pain intensity level

ICD-10 code

G89.2

ICD-10 code description

Chronic pain, not elsewhere classified

2

Description of health condition studied

Lumbar spine curve

ICD-10 code

M40.46

ICD-10 code description

Postural lordosis, lumbar region

3

Description of health condition studied

sense of perception

ICD-10 code

R44

ICD-10 code description

Other symptoms and signs involving general sensations and perceptions

Primary outcomes

1

Description

Pain intensity level

Timepoint

weel 1 and week 8

Method of measurement

It is based on the VAS scale. This criterion has a score ranging from zero to 10, which is determined according to the individual's expression of pain intensity, scored from zero to 10.

2

Description

Lumbar spine curve

Timepoint
week 1 and week 8
Method of measurement
A flexible ruler was used.

3

Description
sense of perception
Timepoint
week 1 and week 8
Method of measurement
According to the Newcomer method (2000), it was done.

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Among the military personnel of Urmia County, considering the conditions for entering the study, 15 individuals with non-specific chronic low back pain were purposefully selected, who underwent 8 weeks of sensory-motor exercises.
Category
Rehabilitation

2

Description
Control group: Among the military personnel of Urmia County, based on the research entry criteria, 15 individuals with non-specific chronic low back pain were purposefully selected, who did not undergo sensory-motor exercises for 8 weeks
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Tanish gym
Full name of responsible person
Changis Hasanzadeh
Street address
Tanish gym, in front of the first alley of Barati St, Sheikh Tepe, Urmia
City
Urmia
Province
West Azarbaijan
Postal code
5756151818
Phone
+98 914 939 2562
Email
changiz.hasanzadeh7@gmail.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Urmia Pardis University
Full name of responsible person
Sajad Roshani
Street address
Shahid Beheshti street
City
Urmia
Province
West Azarbaijan
Postal code
5715944514
Phone
+98 918 143 4527
Email
s.roshani@urmia.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
Urmia University
Proportion provided by this source
100
Public or private sector
Private
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
Urmia University
Full name of responsible person
Sajad Roshani
Position
Associate professor, department of exercise physiology and corrective exercises in Urmia University
Latest degree
Ph.D.
Other areas of specialty/work
Sport Medicine
Street address
11 km of Sero road
City
Urmia

Province
West Azarbaijan
Postal code
5756151818
Phone
+98 44 3275 2741
Email
s.roshani@urmia.ac.ir

Person responsible for scientific inquiries

Contact
Name of organization / entity
Urmia University
Full name of responsible person
Sajad Roshani
Position
Associate professor, department of exercise physiology and corrective exercises in Urmia University
Latest degree
Ph.D.
Other areas of specialty/work
sport pathology and corrective exercises
Street address
11 km of Seru road
City
Urmia
Province
West Azarbaijan
Postal code
5756151818
Phone
+98 44 3275 2741
Email
s.roshani@urmia.ac.ir

Person responsible for updating data

Contact
Name of organization / entity
Urmia University
Full name of responsible person
Sajad Roshani
Position
Associate professor, department of exercise physiology and corrective exercises in Urmia University
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Street address
11 km of Seru road
City
Urmia
Province
West Azarbaijan
Postal code
5756151818
Phone
+98 44 3275 2741
Email
s.roshani@urmia.ac.ir

Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available
Justification/reason for indecision/not sharing IPD
There is no further information
Study Protocol
No - There is not a plan to make this available
Statistical Analysis Plan
No - There is not a plan to make this available
Informed Consent Form
No - There is not a plan to make this available
Clinical Study Report
No - There is not a plan to make this available
Analytic Code
No - There is not a plan to make this available
Data Dictionary
No - There is not a plan to make this available