

Clinical Trial Protocol

Iranian Registry of Clinical Trials

19 Jun 2026

The effect of neuromuscular training on severity of pain, functional disability and balance of military personnel with chronic low back pain.

Protocol summary

Study aim

The effect of neuromuscular training on severity of pain, functional disability and balance of military personnel with chronic low back pain.

Design

A randomized, -controlled clinical trialParallels on 30 military with chronic low back pain.

Settings and conduct

The statistical population of this study consisted of 20- to 40-year-old military men referring to Baqiyatallah University of Medical Sciences Hospital with chronic low back pain. Among these, 30 patients with chronic low back pain who were informed in writing to participate in the study were selected as the study subjects and divided into experimental and control groups. The control group does not perform any exercise. And the experimental group, under the supervision of a correction specialist, performs the researcher's chosen neuromuscular exercises.

Participants/Inclusion and exclusion criteria

Entry requirements 1- Having back pain for more than three months 2- No surgery Exclusion criteria: Having surgery Having fractures

Intervention groups

Experimental protocol was performed in experimental group for 8 weeks and three times a week on pain intensity. Balance and motor function of patients.

Main outcome variables

1. Balance 2. Severity of pain 3. Level of functional disability

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20190427043384N1**

Registration date: **2020-04-09, 1399/01/21**

Registration timing: **registered_while_recruiting**

Last update: **2020-04-09, 1399/01/21**

Update count: **0**

Registration date

2020-04-09, 1399/01/21

Registrant information

Name

Ehsan Alvani

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 8248 2402

Email address

ehsanalvani90@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-05-12, 1398/02/22

Expected recruitment end date

2020-07-15, 1399/04/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of neuromuscular training on severity of pain, functional disability and balance of military personnel with chronic low back pain.

Public title

The effect of neuromuscular exercises on low back pain.

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Inclusion criteria: At least three months low back pain.
Not having any surgery. No disc herniation. No fracture.
Not having discopathy.

Exclusion criteria:

Having any surgery. Having a disc herniation. Having fractures. Having discopathy.

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)

Randomized

Randomization description

Randomization method: simple randomization
Randomization unit: individual Random tool: sealed envelope
How to make randomization: Randomization is done using sealed envelopes. Inside the envelopes, the names of the groups are written, and the subjects are randomly grouped by removing each envelope.

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Baqiyatallah University Of Medical Sciences

Street address

Vanak Square - Mulla Sadra Street - Sheikh Bahai Street South - Shahid Nosrati Alley.

City

Tehran

Province

Tehran

Postal code

1435916471

Approval date

2019-06-08, 1398/03/18

Ethics committee reference number

IR.BMSU.REC.1398.142

Health conditions studied

1

Description of health condition studied

Chronic low back pain

ICD-10 code

M54.5

ICD-10 code description

Low back pain M54.5

Primary outcomes

1

Description

Balance

Timepoint

Before Exercise Protocol - After Exercise Protocol

Method of measurement

Balance with equilibrium tests (static equilibrium: stork test) (dynamic equilibrium: star test).

2

Description

Severity of pain

Timepoint

Before Exercise Protocol - After Exercise Protocol.

Method of measurement

Severity of pain: Using the VAS Analog Scale

3

Description

Functional disability

Timepoint

Before Exercise Protocol - After Exercise Protocol.

Method of measurement

Functional disability: Using Oster questionnaire.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: They perform a neuromuscular exercise protocol for 8 weeks, doing three sessions of about 30 to 60 minutes of exercise three times a week.

Category

Rehabilitation

2

Description

Control group: Control group They will not participate in any private treatment plan and only receive routine care

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Baqiyatallah University Of Medical Sciences Hospital.

Full name of responsible person

Dr. Alireza Shams Aldini.

Street address

Vanak Square, Mulla Sadra Street, South Sheikh Bahai Street.

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Bagheiat-allah University of Medical Sciences

Full name of responsible person

Ehsan Alvani

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

No

Title of funding source

Univercity

Proportion provided by this source

50

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

Bagheiat-allah University of Medical Sciences

Full name of responsible person

Ehsan Alvani

Position

Masters

Latest degree

Master

Other areas of specialty/work

Sport Medicine

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Person responsible for updating data

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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