

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of the effect of Williams exercises and Transcutaneous Electric Nerve Stimulation (TENS) on the chronic low back pain of staff working in the operating room ward

Protocol summary

Study aim

Determination and comparison of the effect of Williams exercises and Transcutaneous Electric Nerve Stimulation (TENS) on the chronic low back pain of staff working in the operating room ward

Design

Clinical trial on 44 person, without control group, non blinded

Settings and conduct

In this research, the operating room personnel of Imam Reza Hospital, Kermanshah, as the research community were selected and samples were selected by a permutation block method among those working in this center with chronic low back pain. Samples were randomly assigned into two groups of Williams exercises and TENS, each of which would consist of 22 samples. Data were collected by the McGill Pain Questionnaire and the Oswestry Low Back Pain Disability Questionnaire before and after the intervention period for the two groups.

Participants/Inclusion and exclusion criteria

The study population was 44 employees in the operating room of Imam Reza Hospital in Kermanshah. Conditions of entry: satisfaction; at least 3 months of history of back pain; lack of history of fracture in the spine; pregnancy; lack of rheumatoid diseases, cancer history, pacemaker, severe deformity and congenital malformation of the spine, and non-use of anti-inflammatory and analgesic drugs. Exclude criteria: dissatisfaction; history of lumbar surgery; history of spinal fractures; pregnancy; having rheumatoid and cancers and having a pacemaker.

Intervention groups

Group 1: Williams exercises and Group 2: TENS (TENS)

Main outcome variables

Severity of pain; Low back pain disability

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180408039227N1**

Registration date: **2019-02-03, 1397/11/14**

Registration timing: **prospective**

Last update: **2019-02-03, 1397/11/14**

Update count: **0**

Registration date

2019-02-03, 1397/11/14

Registrant information

Name

REZA GHASEMI

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 84 3334 6750

Email address

rezaghasemi6718@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-02-04, 1397/11/15

Expected recruitment end date

2019-03-20, 1397/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of Williams exercises and Transcutaneous Electric Nerve Stimulation (TENS) on the chronic low back pain of staff working in the operating room ward

Public title

Comparison of the effect of Williams exercises and Transcutaneous Electric Nerve Stimulation (TENS) on the chronic low back pain

Purpose

Supportive

Inclusion/Exclusion criteria**Inclusion criteria:**

Satisfaction to participate in the study Having at least three months of back pain Lack of history of lumbar surgery Not having a history of fracture in the spine Not pregnancy Not having rheumatoid diseases Not having a pacemaker Not having severe deformity and congenital malformation of the spine

Exclusion criteria:

Unwilling to participate in the study Having a history of lumbar surgery History of fracture in the spine Being pregnant Having rheumatoid diseases Cancer Having a heart pacemaker

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **44**

Randomization (investigator's opinion)

Randomized

Randomization description

The samples studied in this study will be randomly assigned to patients in the studied groups (sport intervention and electrical stimulation intervention). Samples were assigned to randomly assigned random sampling block permutation to the two groups of study. Thus, the study will continue until the number of samples has been completed. To implement this randomization method, the following procedure is performed: 1. The total sample size and sample size ratio were determined in the groups. 2- Single digit numbers between 0 and 9 will be selected from random numbers table. 3- For studies with 2 groups, the numbers from 0 to 9 will be divided into two equal blocks, with the probability of allocating one to each block will be 0.5. Block 4-0 for the first group and block 9-5 for the second group will be used. Based on the selected numbers from the random number table and the determination of the blocks, it will be determined which group to be included in the study.

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 Kermanshah University of Medical Sciences

Street address

Building No. 2 of Kermanshah University of Medical Sciences, Shahid beheshti Blvd

City

Kermanshah

Province

Kermanshah

Postal code

6714673159

Approval date

2019-01-12, 1397/10/22

Ethics committee reference number

IR.KUMS.REC.1397.815

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

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

low back pain

Timepoint

Before and after Intervention

Method of measurement

McGill Pain Questionnaire

Secondary outcomes**1****Description**

Disability caused by back pain

Timepoint

Before and after Intervention

Method of measurement

Oswestry Disability Index

Intervention groups

1

Description

Intervention group 1:williams exercises Intervention group2: TENS

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Emam Reza Hospital

Full name of responsible person

Ghasemi Reza

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Nurse Blvd, Kermanshah

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Kermanshah University of Medical Sciences

Full name of responsible person

Najafi Farid

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farid_n32@yahoo.com

Web page address

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Kermanshah 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

Kermanshah University of Medical Sciences

Full name of responsible person

Ghasemi Reza

Position

Student Master of science In Operating Room

Latest degree

Bachelor

Other areas of specialty/work

Nursery

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Person responsible for scientific inquiries

Contact

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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