Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Nov 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
Street address
Nurse Blvd، Kermanshah
City
Kermanshah
Province
Kermanshah
Postal code
6718743161
Phone
+98 83 3427 6300
Email
info@irhk.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Kermanshah University of Medical Sciences
Full name of responsible person
Najafi Farid
Street address
Shahid Beheshti Blvd, Kermanshah Univercity of Medical Scieces
City
Kermanshah
Province
Kermanshah
Postal code
6715847145
Phone
+98 83 3838 4185
Fax
+98 83 3837 0541
Email
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
Street address
paramedical faculty.Dolatabad Blvd
City
kermanshah
Province
Kermanshah
Postal code
6719851351
Phone
+98 83 3827 9697
Fax
+98 83 3827 9190
Email
rezaghasemi6718@gmail.com

Person responsible for scientific inquiries

Contact
Name of organization / entity
Kermanshah University of Medical Sciences
Full name of responsible person
Fereshteh Jalalvandi
Position
Master of science In Nursing
Latest degree
Master
Other areas of specialty/work
Nursery
Street address
Paramedical Faculty.Dolatabad Blvd.Isar Sqe
City
Kermanshah
Province
Kermanshah

Postal code
6719851351
Phone
0083 38279697
Fax
+98 83 3827 9190
Email
fjalalvandi@kums.ac.ir

Person responsible for updating data

Contact
Name of organization / entity
Kermanshah University of Medical Sciences
Full name of responsible person
Reza Ghasemi
Position
Student Master of Science In Operating Room
Latest degree
Bachelor
Other areas of specialty/work
Neurosurgery
Street address
Paramedical Faculty,Dolatabad Blvd,Isar Sqe
City
Kermanshah
Province
Kermanshah
Postal code
6719851351
Phone
0083 38279697
Fax
+98 83 3827 9190
Email
rezaghasemi6718@gmail.com

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