Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

Effect of 4-week physical therapy with and without National Academy of Sports Medicine (NASM) on pain intensity, functional disability, muscle endurance, low back mobility and quality of life in low back pain with discopathy.

Protocol summary

Study aim
Effect of 4-week physical therapy with and without National Academy of sport medicine NASM on pain intensity، Functional disability، muscle endurance، low back mobility and quality of life in low back pain with discopathy.

Design
This single-blined randomized clinical trial (RCT) includes a control group, treatment (intervention) group. Each group consists of 14 participants who are randomly assigned to their group using Block Randomization with block size four, which results in six possible sequences: AABB,ABAB,ABBA,BAAB,BABA,BBAA.We would then build our full sequence randomly picking, for 7 iterations, one of the previously mentioned sequences to cover all 28 trial participants.

Settings and conduct
This controll trial performed in zanjan and physical therapy clinic.we will have two groups physical therapy with and without NASM.they will asses before begining of intervention with pretests and then after 4 week and intervention again will asses with tests.results will analyse after statistical review.

Participants/Inclusion and exclusion criteria
Inclusion criteria: 1- At least 3-month-long low back pain with radiological findings and diagnostics approved by an orthopedic surgeon. 2- between 18 to 55 years of age. Exclusion criteria: 1-pregnant woman 2-patients absence for more than three consecutive sessions.

Intervention groups
intervention group 1 includes patients with low back pain from discopathy who will undergo physical therapy including core stability and low-power laser. intervention group 2 includes patients with low back pain from discopathy who will undergo physical therapy with corrective exercise.

Main outcome variables
pain

General information

Reason for update

Acronym
lbp pt

IRCT registration information
IRCT registration number: **IRCT20210921052547N1**
Registration date: **2022-01-03, 1400/10/13**
Registration timing: **retrospective**

Last update: **2022-01-03, 1400/10/13**
Update count: **0**

Registration date
2022-01-03, 1400/10/13

Registrant information

Name
Mahdis Hamidi

Name of organization / entity

Country
Iran (Islamic Republic of)

Phone
+98 24 3346 0725

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mahdis.hamidi61@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2021-11-21, 1400/08/30

Expected recruitment end date
2021-12-06, 1400/09/15

Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Effect of 4-week physical therapy with and without National Academy of Sports Medicine (NASM) on pain intensity, functional disability, muscle endurance, low back mobility and quality of life in low back pain with discopathy.

Public title
Effect of physical therapy in low back pain
Purpose
Other
Inclusion/Exclusion criteria
Inclusion criteria:
People with a history of low back pain who have been tested and diognosed by an orthopedic surjeon. No sign of lower limb deformity. At least 3-month-long Low back pain. No limit for undergoing exercise therapy. No lower extremity sensory impairment. No sensory and movement disorders. No autoimmune disease like such as Rheumatoid arthritis. having filled the consent documents. between 18 to 55 years of age.
Exclusion criteria:
Pregnancy for woman. Absence in 3 seceesions consecutive. consent of continuing. Any of disease in process that make it difficult for participants to continuing . Low back injury or lower extremity.
Age
From **18 years** old to **55 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **28**
Randomization (investigator's opinion)
Randomized
Randomization description
In this resurch we will use 4 letters block which are combined from 2 letters A and B.in every block, every letter repeat 2 times and we will have 6 block that they are put in 6 pockets.pockets will numbered from 1 to 6.we will have 28 cases so we will select 7 times.and base on sequence of A and B, cases goes to A and B groups.
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Other
Other design features
Participants are randomly divided into two equal group, and each group will perform physiotherapeutic treatment including core stability exercise and low-power laser therapy.One of the groups will, in addition, perform exercise based on American Academy of Sports medicine.The first group will be considered the controlled group and the second the treatment group.(experimental group).

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
zanjan medical science university
Street address
mahdavi bulvar
City
zanjan
Province
Zanjan
Postal code
4513964841
Approval date
2021-09-21, 1400/06/30
Ethics committee reference number
IR.ZUMS.REC.1400.256

Health conditions studied

1

Description of health condition studied
discopathy
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
pain
Timepoint
4 week after intervention.
Method of measurement
visual analogue scale

2

Description
functional disability
Timepoint
At the begining and end (after 4 week) of intervention.
Method of measurement
Oswestry disability index

Secondary outcomes

1

Description
muscle endurance
Timepoint
At the begining and end(after 4 week) of intervention.
Method of measurement
sorenson test

2

Description
low back mobility
Timepoint
At the begining and end(after 4 week) of intervention.
Method of measurement
goniometer

3

Description
quality of life
Timepoint
At the begining and end(after 4 week) of intervention.
Method of measurement
whoqol-bref

Intervention groups

1

Description
Intervention group1 :Physical therapy that people goes to physicaltherapy for 4 week 3 secession 1 hour consist of core stability exercise and low pwer laser.
Category
Rehabilitation

2

Description
Intervention group: The second group that receive physicaltherapy with national academy of sport medicine for 4 week 3 cession 1 hour consist of core stability exercise and low power laser and NASM.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
farabi physical therapy clinic
Full name of responsible person
Mahdis Hamidi
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Zanjan University of Medical Sciences
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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
zanjan medical science 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
Other

Person responsible for general inquiries

Contact
Name of organization / entity
Zanjan University of Medical Sciences
Full name of responsible person
Mahdis Hamidi
Position
physiotherapist
Latest degree
Bachelor

Other areas of specialty/work
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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