Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 2026

Effects of Quantum movement technique on pain and functional disability in patients with chronic low back pain

Protocol summary

Study aim
To compare the effects of Quantum movement technique on pain and functional disability in patients with chronic low back pain.

Design
Two arm parallel randomised trial with blinded baseline and after treatment interventions, 66 sample size and single centered study

Settings and conduct
Study setting is Department of Physical Therapy, DHQ Hospital Muzaffargarh, Punjab, Pakistan. The study population was consisted of patients with chronic low back pain. Single blinded, participants didn't know while they were receiving experimental or routine physical therapy treatment. We blinded them by not knowing them the intensity, frequency and timing of intervention. Moreover, we opted the option of concealed envelop method for treatment selection that completely minimized the biasness.

Participants/Inclusion and exclusion criteria
Inclusion Criteria: • Patients who had a complaint of Low Back Pain for over 12-weeks. • Region involved of back from L1-L5 and S1. • Patients who had a positive straight leg raise test (SLRT) and received no physiotherapy for at least 6-months. Exclusion Criteria: • Patients who were unable to walk independently. • Patients who had difficulties in exercise performance due to mental problems. • Spinal cord infection like Cauda equina syndrome and Neurological disorders like cerebral palsy, epilepsy

Intervention groups
Along with standard physical therapy like hot packs, bridging exercises, lumbar extension, and prone leg lifts, Group B was also received quantum movement technique. This will be administered on different days. Each session was included ten minutes of thermotherapy. Three repetitions of the quantum movement technique, which includes the McKenzie lumbar extension, stabilization drills, and proprioceptive neuromuscular facilitation, was given. Each treatment session was last for 40 to 45 minutes.

Main outcome variables
Pain Functional Disability

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20230731058990N1**
Registration date: **2023-08-27, 1402/06/05**
Registration timing: **retrospective**

Last update: **2023-08-27, 1402/06/05**
Update count: **0**

Registration date
2023-08-27, 1402/06/05

Registrant information

Name
Kashaf Faraz

Name of organization / entity
University of Lahore

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Pakistan

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2022-12-26, 1401/10/05

Expected recruitment end date
2023-04-26, 1402/02/06

Actual recruitment start date

2022-12-26, 1401/10/05

Actual recruitment end date

2023-05-27, 1402/03/06

Trial completion date

2023-05-30, 1402/03/09

Scientific title

Effects of Quantum movement technique on pain and functional disability in patients with chronic low back pain

Public title

Quantum movement technique on pain and functional disability in patients with chronic low back pain

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Patients who had a complaint of Low Back Pain for over 12-weeks A score greater than or equal to 4/10 on Numeric Pain Rating Scale (NPRS) Evidence of Low Back Pain induced limitations during daily activities. Patients who had a positive straight leg raise test (SLRT) and received no physiotherapy for at least 6-months Region involved of back from L1-L5 and S1 Pre-diagnosed patients of low back pain Age is between 25-55 years Both gender

Exclusion criteria:

Patients who were unable to walk independently Spinal cord infection like Cauda equina syndrome. Patients who had difficulties in exercise performance due to mental problems Neurological disorders like cerebral palsy, epilepsy

Age

From **25 years** old to **55 years** old

Gender

Both

Phase

3

Groups that have been masked

- Participant

Sample size

Target sample size: **78**

Actual sample size reached: **66**

Randomization (investigator's opinion)

Randomized

Randomization description

participants were randomized using gold fish bowl method into two groups. one is control group and the other is experimental group. Treatment allocation were done by using concealed envelope method. In this, sealed opaque envelops with treatment regimen written were provided to the participants. Once a patient had consented to enter a trial an envelope was opened and the patient was then offered the allocated treatment regimen .

Blinding (investigator's opinion)

Single blinded

Blinding description

The study was single blinded. The participants did not know while they were receiving experimental or routine physical therapy treatment. and yes intervention is similar enough for blinding participants.

Placebo

Not used

Assignment

Parallel

Other design features

Straight leg raise test, numeric pain rating scale, Mckenzie lumbar extension

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research Ethics Committee (REC)

Street address

1-Km defense road Lahore, Pakistan

City

Lahore

Postal code

54000

Approval date

2022-12-26, 1401/10/05

Ethics committee reference number

REC-UOL-272-12-2022

Health conditions studied

1

Description of health condition studied

Low back pain

ICD-10 code

M54.5

ICD-10 code description

Low back pain

Primary outcomes

1

Description

Pain

Timepoint

Baseline and 4th, 8th and 12th week of treatment

Method of measurement

Numeric Pain Rating Scale (NPRS)

2

Description

Functional Disability

Timepoint

Baseline and 4th, 8th and 12th week of treatment

Method of measurement

Oswestry Disability Scale (ODI)

Secondary outcomes

1

Description
Functional abilities
Timepoint
Baseline and 4th, 8th and 12th week after treatment
Method of measurement
Oswestry Disability Scale (ODI)

Intervention groups

1

Description
Regular physical therapy for low back pain was included hot packs, bridging exercises, lumbar extension, and prone leg lifts. A maximum of three sessions of this was given on alternate days. Each session was included ten minutes of heating. Three repetitions of the bridging, lumbar extension, and prone leg lift exercises was given. Each therapy session were last 25 to 30 minutes.
Category
Rehabilitation

2

Description
Intervention group: Along with standard physical therapy like hot packs, bridging exercises, lumbar extension, and prone leg lifts, Group B was also received quantum movement technique. This will be administered on different days. Each session was included ten minutes of thermotherapy. Three repetitions of the quantum movement technique, which includes the McKenzie lumbar extension, stabilization drills, and proprioceptive neuromuscular facilitation, was given. Each treatment session was last for 40 to 45 minutes.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Department of Physical Therapy, DHQ Hospital Muzaffargarh
Full name of responsible person
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Sponsors / Funding sources

1

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Web page address
https://uol.edu.pk/lahore-campus-new/
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
UOL, Lahore
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
UOL, Lahore
Full name of responsible person
Dr Sania Naz
Position
Professor
Latest degree
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Other areas of specialty/work
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
Demographic data and data related to final outcome will be shared by maintaining the confidentiality.
When the data will become available and for how long
data will be available from April 2024 to June 2024 after the 6 months of publication. the data sharing plan for a controlled trial (i.e., what data will be shared when and under what conditions) will be publicly available at a third party site that shares data with and meets the data requirements of WHO's International Clinical Trial Registry platforms this occurs before the first participant is enrolled.
To whom data/document is available
Dr Iqra Islam (corresponding author) professor at UOL, Lahore
Under which criteria data/document could be used
for research purpose
From where data/document is obtainable
To the corresponding author of the study, Dr iqra Islam and can contact on +92 313 4260161 iqrawislam@gamail.com can visit these search engines you can find my study easily here https://scholar.google.com/ https://www.researchgate.net/
What processes are involved for a request to access data/document
Open-access and there is the traditional public data release where anyone can get access to the data with no registration or conditions. The request will be reviewed by Director in charge and in case of eligibility, it would be shared in two weeks.
Comments
I want randomized controlled trial registration.