

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

Country

Pakistan

Phone

+92 304 6541357

Email address

kashaf.fraz@uipt.uol.edu.pk

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 envelopes 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

Dr Saqib Fareed

Street address

DHQ Hospital Muzaffargarh

City

Muzaffargarh

Postal code

34200

Phone

+92 304 4407035

Email

sania.naz642@gmail.com

Web page address

<https://dhqmuzaffargarh.punjab.gov.pk/>

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

UOL, Lahore

Full name of responsible person

Dr Ashfaq Ahmad

Street address

1-Km defense road Lahore, Pakistan

City

Lahore

Postal code

54000

Phone

+92 344 4535304

Email

sania.naz642@gmail.com

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

Medical doctor

Other areas of specialty/work

Physiotherapy

Street address

1-Km defense road Lahore, Pakistan

City

Lahore

Province

Punjab

Postal code
54000
Phone
+92 304 4407035
Email
sania.naz642@gmail.com
Web page address
<https://uol.edu.pk/lahore-campus-new/>

54000
Phone
+92 313 4260161
Email
iqrawislam@gmail.com
Web page address
<https://uol.edu.pk/lahore-campus-new/>

Person responsible for scientific inquiries

Contact

Name of organization / entity
UOL, Lahore
Full name of responsible person
Dr Kashaf Faraz
Position
Professor
Latest degree
Medical doctor
Other areas of specialty/work
Physiotherapy
Street address
1-Km defense road Lahore, Pakistan
City
Lahore
Province
Punjab
Postal code
54000
Phone
+92 304 6541357
Email
kashaffraz@gmail.com
Web page address
<https://uol.edu.pk/lahore-campus-new/>

Person responsible for updating data

Contact

Name of organization / entity
UOL, Lahore
Full name of responsible person
Dr Iqra Islam
Position
Professor
Latest degree
Medical doctor
Other areas of specialty/work
Physiotherapy
Street address
1-Km defense road Lahore, Pakistan
City
Lahore
Province
Punjab
Postal code

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@gmail.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.