

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Butler's neural tissue mobilization in comparison with sustained natural apophyseal glide (SNAG) mulligan mobilization for sub-acute and chronic low back pain

Protocol summary

Study aim

The aims are to compare the effectiveness of butler's neural mobilization with SNAG mulligan's mobilization to manage pain, disability and SLR ranges associated with subacute and chronic LBP

Design

Single blind, parallel assigned, multicentered, randomized clinical trial will be conducted on 52 participants (2 groups with 26 each) with diagnosed LBP disc herniation

Settings and conduct

Allied hospital and ProHealth rehab and medical center
Participants are kept anonymous for conducting the single blind trails

Participants/Inclusion and exclusion criteria

Low back pain diagnosed with non-contained disc herniation with radiation to lower extremity of age 35-55 year of both genders, having pain from 6 weeks, patients who are not on analgesics, unilateral SLR is positive in between 35 and 70 degrees will be included. Patients of cauda equina, saddle anesthesia, bowel and bladder symptoms, cancer, infection or inflammatory disease, bladder, kidney, uterus issues, injury, other severe medical or psychiatric illness pregnancy, history of any recent surgery, spinal surgery or artificial disc and LBP due to fracture, spine structural deformities like scoliosis, spinal fusion or osseous stenosis, patients on any other medical or therapeutic intervention within last 3 months, patient who are unable to participate in study due to any abnormality or refusal for consent will be excluded.

Intervention groups

Group A: Baseline treatment will be TENS and hot pack, and then butler neural mobilization will be applied. Group B: Baseline treatment will be same as group A and then SNAG mulligan mobilization will be applied.

Main outcome variables

Low back pain and disability Straight leg raise

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210813052161N1**

Registration date: **2021-09-28, 1400/07/06**

Registration timing: **retrospective**

Last update: **2021-09-28, 1400/07/06**

Update count: **0**

Registration date

2021-09-28, 1400/07/06

Registrant information

Name

Iqra Ibrar

Name of organization / entity

The University of Faisalabad

Country

Pakistan

Phone

+92 41 8401315

Email address

dr.iqraibrar@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-05-21, 1400/02/31

Expected recruitment end date

2021-08-21, 1400/05/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Butler's neural tissue mobilization in comparison with sustained natural apophyseal glide (SNAG) mulligan mobilization for sub-acute and chronic low back pain

Public title

Comparison of neural mobilization with mulligan mobilization for low back pain

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria:

Age 35-55 years. Both genders Low back pain with radiation to lower extremity (above knee) Diagnosed patients of non-contained disc herniation. Patients who are not on analgesics. Patients with minimal 6 weeks history of subacute and chronic low back pain Unilateral SLR is positive in between 35 and 70 degrees.

Exclusion criteria:

Patients of cauda equina syndrome. Diagnosed patients of non-contained disc herniation. Patient with LBP due to fracture, spine structural deformities like scoliosis, spinal fusion or osseous stenosis. Patient with history of any recent surgery, spinal surgery or artificial disc. Patient with saddle anesthesia. Patient with bowel and bladder symptoms. Patient having pregnancy. Patient with cancer, infection or inflammatory disease, bladder, kidney, uterus issues, injury, other severe medical or psychiatric illness Patients on any other medical or therapeutic intervention within last 3 months. Patient who are unable to participate in study due to any abnormality or refusal for consent.

Age

From **35 years** old to **55 years** old

Gender

Both

Phase

3

Groups that have been masked

- Participant

Sample size

Target sample size: **52**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization of the participants was accomplished by using simple random sampling by means of lottery method

Blinding (investigator's opinion)

Single blinded

Blinding description

Participants will be aware of the existence of both groups. Participants will have complete information about the description of treatment being performed in both groups but will not be aware which treatment will be performed on them. All the participants will be masked in the study. This will be carried out by keeping the anonymous by study period.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics and Technical committee of The University of Faisalabad

Street address

University Town, Sargodha Road

City

Faisalabad

Postal code

38000

Approval date

2021-05-21, 1400/02/31

Ethics committee reference number

TUF/DR/SA/MSPP/2021/213-230

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

Low back pain

Timepoint

Before intervention, 2nd week and 4th week

Method of measurement

Visual analogue scale

2

Description

Straight leg raise

Timepoint

Before intervention, 2nd week and 4th week

Method of measurement

Goniometer

Secondary outcomes

1

Description

Low back disability

Timepoint

Before intervention and 4th week

Method of measurement

Oswestry disability index

Intervention groups

1

Description

Intervention group: For group A baseline treatment will be TENS and hot pack (10 min) and then Butler's neural mobilization will be applied as patients will be supine and therapist will be in foot standing position. Therapist will place one hand under ankle without putting pressure on patient's patella or peripheral nerves. Hip will be flexed and knee extended in one plane and will move the leg to the position where patients will feel symptoms.

Sustained stretch or slow oscillations will be provided for 10 seconds. Then returned to neutral position and it will contain 3 sets. Exercise will perform 3 times a day; regularly for 4 weeks duration. Device used will be plinth.

Category

Treatment - Other

2

Description

Intervention group: For group B baseline treatment will be same including TENS and hot pack (10 min) and then SNAG mulligan's mobilization will be applied as patients will be sitting while facing away from the therapist. Pelvis will be stabilized by belt that will surround patient's ASIA and around the physiotherapist ischial tuberosity.

Therapist will put thumb on spinous process and palpate it. Patient will flex and then extend lumbar spine to neutral position. Belt tension will be maintained by PT. Technique will be applied on lumbar spinal levels of pain. Therapist ask patient to move into flexion and at the same time will apply sustained posteroanterior force throughout the movement on the painful spinous process. Oscillation amplitude and depth will depend upon patient pain and other symptoms. If patient's major complaint will be pain, then oscillation depth will be in pain free range and not deep. Exercises were performed with 10 repetitions, 3 sets. It will be performed three times a week for 4 weeks duration. Devices used will be Mulligan belts and plinths.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Allied Hospital

Full name of responsible person

Sobia Nawaz

Street address

Dr. Tusi Road

City

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Phone

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Email

sobiariaz746@gmail.com

Web page address

<https://www.pmc.edu.pk>

2

Recruitment center

Name of recruitment center

Prohealth Rehab & Medical Center

Full name of responsible person

Zain Ali

Street address

P-346 Kashmir Rd, C Block Amin Town

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Faisalabad

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38000

Phone

+92 41 5234543

Email

zainalibal47@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Yasmin physiotherapy center

Full name of responsible person

Osama ramzan

Street address

Sargodha road near Muslim town 3 opposite KIA motors

City

Faisalabad

Postal code

38000

Phone

+92 41 8785675

Email

osamaramzan@gmail.com

Web page address

<http://omiphysio.com>

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Yasmin physiotherapy center

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**

The University of Faisalabad

Full name of responsible person

Iqra Ibrar

Position

Student

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Person responsible for updating data**Contact****Name of organization / entity**

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

As we have signed and assured the participants that their data will not be shared anywhere else other than the current study

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

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

The primary and secondary outcome measures data will be shared and no further details regarding the personal information of patient will be shared

When the data will become available and for how long

starting in January 2022

To whom data/document is available

for everyone relevant to the field

Under which criteria data/document could be used

whoever will request for the data

From where data/document is obtainable

through email address

What processes are involved for a request to access data/document

an email stating the use of data will be appreciated
Comments