Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 mullligan 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 contains 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 fee 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
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https://www.pmc.edu.pk

2

Recruitment center
Name of recruitment center
Prohealth Rehab & Medical Center
Full name of responsible person
Zain Ali
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P-346 Kashmir Rd, C Block Amin Town
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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
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Iqra Ibrar
Position
Student
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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