Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

effectiveness of flossing technique in addition to routine physical therapy on pain and range of motion in patients with patellofemoral pain syndrome: A randomized controlled trial

Protocol summary

Study aim
To determine the effectiveness of flossing techniques on pain and range of motion in patients with patellofemoral pain syndrome

Design
It will be a two arm parallel Randomized trial with outcome assessor being blinded

Settings and conduct
Data will be collected from outpatient department of REX clinic Lahore

Participants/Inclusion and exclusion criteria
Inclusion Criteria: (1)Patients with age 14-40 will be included (2)Diagnosed patients with patellofemoral pain syndrome having three months history of pain (3) patients with positive clinical patellar test Exclusion Criteria: Patients with history of knee Osteoarthritis, fracture of knee joint, malignancy will not be included in the trial

Intervention groups
Group A will receive Routine physical therapy which involves standing hamstring stretch, quadriceps stretch, side lying leg lift, Quads sets, straight leg raise, step up, wall squats and stabilization exercises Group B will receive flossing exercises along with routine physical therapy. Floss band which is stretchable will be used for this purpose.

Main outcome variables
Pain, functional disability and range of motion

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20220610055129N1**
Registration date: **2022-06-22, 1401/04/01**
Registration timing: **retrospective**
Last update: **2022-06-22, 1401/04/01**
Update count: **0**

Registration date
2022-06-22, 1401/04/01

Registrant information

Name
saba saeed

Name of organization / entity
University of lahore

Country
Pakistan

Phone
+92 335 6781981

Email address
sabasaeed2633@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2021-12-24, 1400/10/03

Expected recruitment end date
2022-06-20, 1401/03/30

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
effectiveness of flossing technique in addition to routine physical therapy on pain and range of motion in patients with patellofemoral pain syndrome: A randomized controlled trial

Public title
Effects of flossing techniques along with routine

exercises on pain and range of motion of knee in patients with patellofemoral pain syndrome:A randomized controlled trial

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Diagnosed patients with patellofemoral pain syndrome having three months history of pain Patients having positive clinical patellar test will be included

Exclusion criteria:

Patients with Osteoarthritis of knee joint, patellar tendinopathy will not be included Patients with Osgood Schlatter disease Those with recent history if fracture of knee joint will not be included in the trial Those who will have had history of malignancy will not be taken into account

Age

From **14 years** old to **40 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Care provider
- Outcome assessor

Sample size

Target sample size: **60**

More than 1 sample in each individual

Number of samples in each individual: **3**

Data will be taken at baseline, 2nd and 6th week post intervention

Randomization (investigator's opinion)

Randomized

Randomization description

Total 60 participants will be randomly allocated into two groups using computer generated randomization method in which computer software will be utilized to randomly allocate participants in either group A or Group B. Then it will be concealed in and envelope and participant will be given concealed envelopes. Convenient random sampling technique will be used

Blinding (investigator's opinion)

Double blinded

Blinding description

It will be Double blinded study as assessor and caregiver will be unaware of the treatment given to patient. Treatment will be carried out in the treatment room with only patient and physiotherapist present and assessor and caregivers will not be given any information on which technique they applied to the participant. In this way they will be blinded.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research Ethics Committee and Institutional review board of University of Lahore

Street address

1km.off defence road, Lahore

City

Lahore

Postal code

537000

Approval date

2021-12-23, 1400/10/02

Ethics committee reference number

IRB-UOL-FAHS/1086/2021

Health conditions studied

1

Description of health condition studied

Patellofemoral pain syndrome

ICD-10 code

M22.2X9

ICD-10 code description

Patellofemoral disorders, unspecified knee

Primary outcomes

1

Description

Pain

Timepoint

Primary outcome will be measured at baseline, 3rd and 6th week post intervention

Method of measurement

Pain will be assessed using Visual Analog Scale

2

Description

Functional disability

Timepoint

It will be assessed at Baseline, 3rd and 6th week post intervention

Method of measurement

It will be measured using Lower Extremity Functional Index

3

Description

Range of motion

Timepoint

Range of motion will be assessed at Baseline, 3rd and 6th week post intervention

Method of measurement

Range of motion will be measured using Goniometer

Secondary outcomes

empty

Intervention groups

1

Description

Control group: will receive Routine physical therapy. In routine physical therapy stabilization exercises of knee along with other exercises will be performed which includes quads sets exercises, side lying leg lift, straight leg raise, step up, wall squats.

Category

Treatment - Other

2

Description

Intervention group: will receive flossing exercises along with the routine physical therapy. Floss band will be used for this purpose.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

REX clinic Lahore

Full name of responsible person

Ashfaq Ahmad

Street address

1km.off defence road, Lahore

City

Lahore

Postal code

537000

Phone

+92 51 3544112

Email

Ashfaq.ahmad@uipt.uol.edu.pk

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

University of Lahore

Full name of responsible person

Dr. Asadullah Arsalan

Street address

1km.off defence road, Lahore

City

Lahore

Postal code

537000

Phone

+92 922 111 844 844

Email

asadshahgilani@gmail.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

University of 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

Sialkot college of physical therapy Sialkot

Full name of responsible person

Nusrat Qamar

Position

Lecturer

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

Street address

Nawan pind aimnabad road, Sialkot

City

Sialkot

Province

Punjab

Postal code

51040

Phone

092513544112

Email

dr.nusratqamar55@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

University of Lahore

Full name of responsible person

Dr. Ashfaq Ahmad

Position

Associate Dean

Latest degree
Ph.D.

Other areas of specialty/work
Physiotherapy

Street address
1km.off defence road, Lahore

City
Lahore

Province
Punjab

Postal code
537000

Phone
09221111844844

Email
ashfaq.ahmad@uipt.uol.edu.pk

Person responsible for updating data

Contact

Name of organization / entity
Sialkot college of physical therapy Sialkot

Full name of responsible person
Nusrat Qamar

Position
Lecturer

Latest degree
Bachelor

Other areas of specialty/work
Physiotherapy

Street address
Nawan pind aimnabad road, Sialkot

City
Sialkot

Province
Punjab

Postal code
51040

Phone
092513544112

Email
dr.nusratqamar55@gmail.com

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
Effects of flossing techniques along with the routine physical therapy on pain and range of motion in patients with patellofemoral pain syndrome: A randomized controlled trial All collected deidentified IPD will be shared

When the data will become available and for how long
Data will become available after 15 December 2022 for a period of 3 years

To whom data/document is available
People working in academics or who are involved in clinical trials or to students for research purposes

Under which criteria data/document could be used
Data can be used for research purpose only

From where data/document is obtainable
Data can be obtained by sending an email

What processes are involved for a request to access data/document
Data can be obtained by sending an email to dr.nusratqamar55@gmail.com

Comments