

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 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

sabasaheed2633@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 of 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 an 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@uipat.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