

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Comparison of effects of Kinesio taping versus McConnell taping on function and dynamic postural control in athletes with patellofemoral pain syndrome

#### Protocol summary

##### Study aim

To compare the effects of Kinesio taping versus McConnell taping on function and dynamic postural control in athletes with patellofemoral pain syndrome.

##### Design

Parallel groups, single blinded, single setting randomized control trial

##### Settings and conduct

Spine Physiotherapy Clinic, Sahiwal.

##### Participants/Inclusion and exclusion criteria

Inclusion Criteria • Referred athletes with chronic PFPS, Patients diagnosed with chronic PFPS, Subject not received taping before, Subject not receiving any pain killer or medical treatment, Positive Clark's test , Age: 18 to 40 years, Both gender Exclusion Criteria Patients with history of: Ankle and hip pathology, Any other knee abnormality or arthritis, Lower limb fracture, Subject using corticosteroids, Pregnancy, Irritation from taping, Surgery

##### Intervention groups

60 athlete patients were randomly allocated into 2 groups, 30 patients in each group. Group A patient were treated with Kinesio taping while Group B patients were treated with McConnell taping technique. Randomization of patients into groups were done by mean of lottery method. Taking in account an inclusion and exclusion criteria before enrolling them in this study. Informed consent was considered in written about their willingness in the study. Volunteers was provided with the detailed information i.e. both verbal and written regarding the study procedure. Both groups receive conventional therapy, that was TENS, ultrasound and quadriceps exercises

##### Main outcome variables

• Functional Activity was assessed by using lower extremity functional scale • Postural and Dynamic Control measured by star excursion balance test

#### General information

##### Reason for update

##### Acronym

PFPS

##### IRCT registration information

IRCT registration number: **IRCT20200611047734N1**

Registration date: **2020-06-17, 1399/03/28**

Registration timing: **retrospective**

Last update: **2020-06-17, 1399/03/28**

Update count: **0**

##### Registration date

2020-06-17, 1399/03/28

##### Registrant information

##### Name

AYESHA RAZZAQ

##### Name of organization / entity

King Edward Medical University, Lahore

##### Country

Pakistan

##### Phone

+92 61 6521475

##### Email address

drayesharazzak@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2019-12-01, 1398/09/10

##### Expected recruitment end date

2020-06-01, 1399/03/12

##### Actual recruitment start date

2019-12-01, 1398/09/10

##### Actual recruitment end date

2020-06-01, 1399/03/12

**Trial completion date**

2020-06-01, 1399/03/12

**Scientific title**

Comparison of effects of Kinesio taping versus McConnell taping on function and dynamic postural control in athletes with patellofemoral pain syndrome

**Public title**

Comparison of effects of Kinesio taping versus McConnell taping on function and dynamic postural control in athletes with patellofemoral pain syndrome

**Purpose**

Treatment

**Inclusion/Exclusion criteria****Inclusion criteria:**

• Referred athletes with chronic patellofemoral pain syndrome. • Patients diagnosed with chronic PFPS • Subject not received taping before • Subject not receiving any pain killer or medical treatment • Positive Clark's test • Age: 18 to 40 years • Both gender

**Exclusion criteria:**

Patients with history of: • Ankle and hip pathology • Any other knee abnormality or arthritis • Lower limb fracture • Subject using corticosteroids • Pregnancy • Irritation from taping • Surgery

**Age**

From **18 years** old to **40 years** old

**Gender**

Both

**Phase**

2

**Groups that have been masked**

- Participant

**Sample size**

Target sample size: **60**

More than 1 sample in each individual

Number of samples in each individual: **30**

30 patient diagnosed with PFPS was randomly allocated in each group

Actual sample size reached: **60**

More than 1 sample in each individual

Actual sample size in each individual: **30**

30 patient diagnosed with PFPS was randomly allocated in each group

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

The patients having diagnosed patellofemoral pain syndrome was recruited in the study by convenient sampling, and the patients who fulfilled the inclusion and exclusion criteria was selected, with similar baseline characteristics. The consent was taken from the subjects to participate in the study. It was a single blinded trial in which the assessor was kept blind. The subjects was randomly assigned to one of two groups by using a lottery method, using a restricted randomization scheme to assure equal numbers in each group. Random allocation to all groups was ensured, from all study personnel and participants by entry of data.

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

it was a single blinded trial in which participant/ patients were kept blind about the 2 of treatment technique which was provided to them during management session.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features**

Parallel groups, single blinded, single setting

**Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

institutional review board

**Street address**

1 km, Bhabatyan chowk, Raiwind road

**City**

Lahore

**Postal code**

0544

**Approval date**

2019-12-01, 1398/09/10

**Ethics committee reference number**

IRB-UOL-FAHS/657/2019

**Health conditions studied****1****Description of health condition studied**

patellofemoral pain syndrome

**ICD-10 code**

M25.56

**ICD-10 code description**

Pain in knee

**Primary outcomes****1****Description**

- Functional Activity

**Timepoint**

Baseline and after 24 hour

**Method of measurement**

lower extremity functional scale

**2****Description**

- Postural and Dynamic Control

**Timepoint**

Baseline and after 24 hour  
**Method of measurement**  
Star excursion balance test

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: 60 athlete patients were randomly allocated into 2 groups, 30 patients in each group. Group A patient were treated with Kinesio taping. Taking in account an inclusion and exclusion criteria before enrolling them in this study. Informed consent was considered in written about their willingness in the study. Volunteers was provided with the detailed information i.e. both verbal and written regarding the study procedure. Both groups receive conventional therapy, that was TENS, ultrasound and quadriceps exercises. Assessment was done before and after the application of tape. For the baseline measure, Pre tape assessment, which was measured just before the application of tape, Post taping assessment after 24 hours while tape still in place and follow up measurement after 24 hours of tape removal. Pre tape assessment was used as baseline measurement. Excursion Balance Test (SEBT) was used for the measurement actual dynamic postural control. To measure the functional activity LEFS was be used. SEBT assessment was done in i.e. anterior, posteromedial, and posterolateral direction. Group A (Kinesio taping): - Kinesio taping plus TENS plus ultrasound plus quadriceps exercises. Dosage: - o K-taping for 24 hours o Ultrasound = 1MHZ, 0.8W/cm<sup>2</sup>, for 4 minutes o TENS= 100Hz, 50 μ s pulse, 20 minutes. o Quadriceps exercise = 10 times repetition

#### Category

Treatment - Devices

### 2

#### Description

Intervention group: 60 athlete patients were randomly allocated into 2 groups, 30 patients in each group. Group B patient were treated with McConnell taping. Taking in account an inclusion and exclusion criteria before enrolling them in this study. Informed consent was considered in written about their willingness in the study. Volunteers was provided with the detailed information i.e. both verbal and written regarding the study procedure. Both groups receive conventional therapy, that was TENS, ultrasound and quadriceps exercises. Assessment was done before and after the application of tape. For the baseline measure, Pre tape assessment, which was measured just before the application of tape, Post taping assessment after 24 hours while tape still in place and follow up measurement after 24 hours of tape removal. Pre tape assessment was used as baseline measurement. Excursion Balance Test (SEBT) was used for the measurement actual dynamic postural control. To

measure the functional activity LEFS was be used. SEBT assessment was done in i.e. anterior, posteromedial, and posterolateral direction. Group B (McConnell taping): - McConnell taping+ TENS+ ultrasound+ quadriceps exercises. Dosage: - o M-taping for 24 hours o Ultrasound = 1MHZ, 0.8W/cm<sup>2</sup>, for 4 minutes o TENS= 100Hz, 50 μ s pulse, 20 minutes. o Quadriceps exercise = 10 times repetition

#### Category

Treatment - Devices

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Spine Physiotherapy Clinic, Sahiwal.

##### Full name of responsible person

Naeem Aslam

##### Street address

spine clinic, 21 main fateh sher road sahiwal

##### City

Sahiwal

##### Postal code

57000

##### Phone

+92 40 4462978

##### Email

naeemaslam693@gmail.com

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

University of Lahore

##### Full name of responsible person

Umair Ahmad

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1 km, Raiwind road

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##### Postal code

0544

##### Phone

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##### Email

umairahmad@gmail.com

#### Grant name

student

#### Grant code / Reference number

NA

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

No

#### Title of funding source

Academic support Only

#### Proportion provided by this source

20

#### 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**  
University of Lahore  
**Full name of responsible person**  
Naeem Aslam  
**Position**  
consultant physiotherapist  
**Latest degree**  
Master  
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Physiotherapy  
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spine clinic, 21 main fateh sher road  
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## Person responsible for scientific inquiries

### Contact

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

### Contact

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57000  
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+92 40 4462978  
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naemaslam693@gmail.com

## Sharing plan

### Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

### Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

### Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

### Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

### Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

### Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

### Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available

### Title and more details about the data/document

Comparison of effects of Kinesio taping versus McConnell taping on function and dynamic postural control in athletes with patellofemoral pain syndrome

### When the data will become available and for how long

It will be available after study completion and publication

### To whom data/document is available

academic institute To researchers for study only. Patient data will not be shown

### Under which criteria data/document could be used

under the usage with terms in which journal is accessed /processed for publication, and on request

### From where data/document is obtainable

from the University office and Responsible supervisor  
and from journal we will process in future  
**What processes are involved for a request to access  
data/document**

It will be only used in confidential way for improving  
research and benefit of humanity can call or mail  
**Comments**  
data can be provided on request