

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Comparison of effect of two taping method (kinesio and McConnell) and their effect on functional activities and pain in athlete with patellofemoral pain syndrome

#### Protocol summary

##### Summary

Objectives: Comparison of two taping techniques (kinesio and McConnell) and their effect on functional activities and pain in athlete with patellofemoral pain syndrome. Design: This is a randomized clinical trial. Thirty athletes will be randomly assigned to three groups: kinesio taping; McConnell taping and control groups. Participants: 30 athletes aged 18-35 years old will take part in the study. Inclusion criteria: unilateral anterior or retropatellar knee pain; existence of symptoms for at least 1 month and an average pain level of 3 on visual analog scale. Exclusion criteria: history of patellar dislocation; bilateral PFP; had an allergy to adhesive tape; referred pain from the lumbar spine and hip joint. Interventions: for kinesio taping group VMO muscles to the facilities type. For McConnell taping group mechanical correction of patellar done by pulling the patella to medial. For control group will not perform any taping. Individuals in both groups will be assessed for pain; Vertical Jump; agility; Sprint; balance and Muscle strength Before; immediately after intervention, 24 hr and 48 hr after intervention. Main Outcome Measures: Quadriceps muscle strength; pain level using the 10-cm visual analog scale; agility by shuttle running test; Sprint running; Vertical Jump by sargent jump test and Reach distance that normalize by dividing the distance by the participants' leg length during Y balance test performance.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2015012420764N1**  
Registration date: **2015-05-10, 1394/02/20**  
Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2015-05-10, 1394/02/20

##### Registrant information

###### Name

Mahlegha Mortazavi

###### Name of organization / entity

Shiraz School of Rehabilitation, Shiraz University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 71535239943

###### Email address

m\_mortazavi@sums.ac.ir

##### Recruitment status

###### Recruitment complete

##### Funding source

Vice chancellor for research of University of Medical Sciences

##### Expected recruitment start date

2014-10-23, 1393/08/01

##### Expected recruitment end date

2015-01-21, 1393/11/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Comparison of effect of two taping method (kinesio and McConnell) and their effect on functional activities and pain in athlete with patellofemoral pain syndrome

##### Public title

The effect of taping on performance in athletes with patellofemoral pain syndrome

## Purpose

Supportive

## Inclusion/Exclusion criteria

Inclusion criteria: behind or around the patella pain resulting from at least two of the following activities: prolonged sitting, ascending or descending the stairs, prolonged walking, squatting, running, kneeling, and hopping or jumping; existence of symptoms for at least 1 month; lateral shift of patella; tight lateral structure of knee; Average pain score  $\geq 3$  cm on a 10-cm visual analog scale (VAS) at the time of the evaluation; and at least grade 11 in Functional Index Questionnaire. Exclusion criteria: a history of patellar dislocation or subluxation; bilateral PFP; had an allergy to adhesive tape; referred pain from the lumbar spine and hip joint; severe leg length discrepancy more than 2 cm; patella tendinitis ('Jumper's knee'); tibial tubercle apophysitis (Osgood Schlatters disease); bursitis; infrapatella fat pad lesion (Hoffa's syndrome).

## Age

From 18 years old to 35 years old

## Gender

Female

## Phase

2-3

## Groups that have been masked

No information

## Sample size

Target sample size: 30

## Randomization (investigator's opinion)

Randomized

## Randomization description

## Blinding (investigator's opinion)

Not blinded

## Blinding description

## Placebo

Not used

## Assignment

Parallel

## Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics Committee of Shiraz University of Medical Sciences

##### Street address

Shiraz University of Medical Sciences, Zand Ave

##### City

Shiraz

##### Postal code

#### Approval date

2014-11-19, 1393/08/28

## Ethics committee reference number

CT-9375-7215

## Health conditions studied

### 1

#### Description of health condition studied

Patellofemoral pain syndrome

#### ICD-10 code

M94.2

#### ICD-10 code description

Chondromalacia

## Primary outcomes

### 1

#### Description

Pain

#### Timepoint

Before, immediately after intervention, 24 hr and 48 hr after intervention

#### Method of measurement

Visual analog scale

### 2

#### Description

Reach distance in dynamic balance

#### Timepoint

Before, immediately after intervention, 24 hr and 48 hr after intervention

#### Method of measurement

Tape

### 3

#### Description

Vertical jump

#### Timepoint

Before, immediately after intervention, 24 hr and 48 hr after intervention

#### Method of measurement

Tape

### 4

#### Description

Sprint

#### Timepoint

Before, immediately after intervention, 24 hr and 48 hr after intervention

#### Method of measurement

Chronometer

### 5

#### Description

Measurement of isometric quadriceps muscle

#### Timepoint

Before, immediately after intervention, 24 hr and 48 hr

after intervention  
**Method of measurement**  
Dynamometer

## 6

**Description**  
Shuttle running(agility)  
**Timepoint**  
Before ,immediately after intervention ,24 hr and 48 hr after intervention  
**Method of measurement**  
Chronometer

## **Secondary outcomes**

empty

## **Intervention groups**

### 1

**Description**  
For first group McConnell taping will apply to correct the position of the patella layer was applied from lateral femoral condyle to just posterior of the medial femoral condyle. The patella will completely covered by the base layer. Second layer will attached from the lateral patellar border to posterior of medial condyle.

**Category**  
Rehabilitation

### 2

**Description**  
For second group The kinsio taping will apply from the direction of origin to insertion with 25-50% of its maximal length tension' which was proposed to provide muscle facilitation effect.

**Category**  
Rehabilitation

### 3

**Description**  
For control group will not perform any taping  
**Category**  
N/A

## **Recruitment centers**

### 1

**Recruitment center**  
**Name of recruitment center**  
Ghadir sports club  
**Full name of responsible person**  
Ms Zaravar  
**Street address**  
Shiraz School of Rehabilitation, First Abiverdi Ave,  
Chamran Boulevard.  
**City**  
Shiraz

## **Sponsors / Funding sources**

### 1

**Sponsor**  
**Name of organization / entity**  
Vice-Chancellery for Research of Shiraz University of  
Medical Sciences  
**Full name of responsible person**  
Dr. Mohammad Ali Sahmeddini  
**Street address**  
Vice-Chancellery of Research, Shiraz University of  
Medical Sciences, Zand Ave  
**City**  
Shiraz  
**Grant name**  
**Grant code / Reference number**  
**Is the source of funding the same sponsor  
organization/entity?**  
Yes  
**Title of funding source**  
Vice-Chancellery for Research of Shiraz University of  
Medical Sciences  
**Proportion provided by this source**  
100  
**Public or private sector**  
*empty*  
**Domestic or foreign origin**  
*empty*  
**Category of foreign source of funding**  
*empty*  
**Country of origin**  
**Type of organization providing the funding**  
*empty*

## **Person responsible for general inquiries**

### **Contact**

**Name of organization / entity**  
Shiraz School of Rehabilitation, Shiraz University of  
Medical Sciences  
**Full name of responsible person**  
Mahlegha Mortazavi  
**Position**  
Student  
**Other areas of specialty/work**  
**Street address**  
Shiraz School of Rehabilitation, First Abiverdi Ave,  
Chamran Boulevard.  
**City**  
Shiraz  
**Postal code**  
**Phone**  
+98 917 260 2774  
**Fax**  
**Email**  
m\_mortazavi@sums.ac.ir  
**Web page address**

## **Person responsible for scientific**

## **inquiries**

### **Contact**

**Name of organization / entity**

Shiraz School of Rehabilitation, Shiraz University of  
Medical Sciences

**Full name of responsible person**

Dr. Soraya piroozi

**Position**

Assistant Professor of Shiraz University of Medical  
Sciences

**Other areas of specialty/work**

**Street address**

Shiraz School of Rehabilitation, First Abiverdi Ave,  
Chamran Boulevard.

**City**

Shiraz

**Postal code**

**Phone**

+98 917 387 8391

**Fax**

**Email**

piroozis@sums.ac.ir

**Web page address**

## **Person responsible for updating data**

### **Contact**

**Name of organization / entity**

Shiraz School of Rehabilitation

**Full name of responsible person**

Mahlegha Mortazavi

**Position**

Student

**Other areas of specialty/work**

**Street address**

First Abiverdi, Chamran Boulevard

**City**

Shiraz

**Postal code**

**Phone**

00

**Fax**

**Email**

**Web page address**

## **Sharing plan**

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

*empty*

**Study Protocol**

*empty*

**Statistical Analysis Plan**

*empty*

**Informed Consent Form**

*empty*

**Clinical Study Report**

*empty*

**Analytic Code**

*empty*

**Data Dictionary**

*empty*