

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

The effect of knee joint mobilization on quadriceps strength & proprioception of knee joint

Protocol summary

Summary

In this study, the effects of mobilization on quadriceps muscle strength and proprioception of knee joint are evaluated. The subjects are 35 girl students in the age range of 18-35. Quadriceps muscle strength in the dominant leg is measured by a dynamometer. Proprioception is measured in the same leg. Knee proprioception will be assessed by a 3D motion analysis system with 6 cameras (gait analysis system qualysis, Sweden). Grade 4 mobilization technique in an anteroposterior direction for 3 minutes is used on the knee joint which is in 90 degrees of flexion. Immediately after mobilization the maximum isometric contraction is measured. Then proprioception will be re-evaluated. 20 and 30 minutes after the intervention, quadriceps muscle strength will be measured in the same way as before intervention.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201010102708N3**

Registration date: **2012-08-09, 1391/05/19**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2012-08-09, 1391/05/19

Registrant information

Name

Ali Ghanbari

Name of organization / entity

Shiraz University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Research deputy of Shiraz University of Medical Sciences

Expected recruitment start date

2012-06-22, 1391/04/02

Expected recruitment end date

2012-10-22, 1391/08/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of knee joint mobilization on quadriceps strength & proprioception of knee joint

Public title

The effect of knee joint mobilization on quadriceps strength & proprioception of knee joint in girl students of Shiraz rehabilitation school

Purpose

Other

Inclusion/Exclusion criteria

inclusion criteria: People in the age range of 18-30 years; People with normal function of the knee joint and without any pain and disorder in the knee. Exclusion criteria: people below 18 years old and above 30 years old; People who have experienced trauma, pathology, hypomobility or hypermobility & pain in knee; People with diabetes.

Age

From **18 years** old to **30 years** old

Gender

Female

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: 35

Randomization (investigator's opinion)
N/A

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Shiraz medical university

Street address
Medical university central building, zand street, Shiraz

City
Shiraz

Postal code
71345-1978

Approval date
2010-10-02, 1389/07/10

Ethics committee reference number
CT-89-5252

Health conditions studied

1

Description of health condition studied
knee joint disorders

ICD-10 code
M-25.9

ICD-10 code description
Joint disorder, unspecified

Primary outcomes

1

Description
proprioception of knee joint

Timepoint
before intervention, after intervention

Method of measurement

Three dimensional motion analysis system

2

Description
maximal voluntary contraction of quadriceps

Timepoint
before intervention, immediately after intervention, 20 min after intervention, 30 min after intervention

Method of measurement
dynamometer

Secondary outcomes

empty

Intervention groups

1

Description
Mobilization fo the knee joint

Category
Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Rehabilitation Sciences Faculty

Full name of responsible person
Dr.Ali Ghanbary

Street address
Rehabilitation Sciences Faculty, Abiverdi 1, Chamran Bvd.Shiraz

City
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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Shiraz University of Medcal Sciences

Full name of responsible person
Dr.Gholamreza Hatam

Street address
Shiraz University of Medcal Sciences, Zand Street

City
Shiraz

Grant name

Grant code / Reference number

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

Title of funding source
Shiraz University of Medcal 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*

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Position

Assistant professor/ PhD in physiotherapy

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Bvd, Shiraz**City****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*