

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

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Name of organization / entity

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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	Three dimensional motion analysis system
Phase N/A	2
Groups that have been masked No information	Description maximal voluntary contraction of quadriceps
Sample size Target sample size: 35	Timepoint before intervention, immediately after intervention, 20 min after intervention, 30 min after intervention
Randomization (investigator's opinion) N/A	Method of measurement dynamometer
Randomization description	
Blinding (investigator's opinion) Not blinded	Secondary outcomes empty
Blinding description	
Placebo Not used	Intervention groups
Assignment Single	1
Other design features	Description Mobilization fo the knee joint
Secondary Ids empty	Category Treatment - Other
Ethics committees	Recruitment centers
1	1
Ethics committee	Recruitment center
Name of ethics committee Shiraz medical university	Name of recruitment center Rehabilitation Sciences Faculty
Street address Medical university central building, zand street, Shiraz	Full name of responsible person Dr.Ali Ghanbary
City Shiraz	Street address Rehabilitation Sciences Faculty, Abiverdi 1, Chamran Bvd.Shiraz
Postal code 71345-1978	City Shiraz
Approval date 2010-10-02, 1389/07/10	
Ethics committee reference number CT-89-5252	
Health conditions studied	Sponsors / Funding sources
1	1
Description of health condition studied knee joint disorders	Sponsor
ICD-10 code M-25.9	Name of organization / entity Shiraz University of Medcal Sciences
ICD-10 code description Joint disorder, unspecified	Full name of responsible person Dr.Gholamreza Hatam
	Street address Shiraz University of Medcal Sciences, Zand Street
	City Shiraz
Primary outcomes	Grant name
1	Grant code / Reference number
Description proprioception of knee joint	Is the source of funding the same sponsor organization/entity? Yes
Timepoint before intervention, after intervention	Title of funding source Shiraz University of Medcal Sciences
Method of measurement	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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Full name of responsible person

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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*