Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

The effect of Codman exercises with and without kinesiotape on pain, range of motion, and functional tests in women with frozen shoulder

Protocol summary

Study aim

To compare the effectiveness of eight weeks of Codman pendulum exercises with kinesiotape versus Codman exercises alone on pain reduction, range of motion improvement, and shoulder function in women with frozen shoulder.

Design

Design: Randomized clinical trial, two-arm parallel, pretest–posttest, single-center. Randomization: Simple random allocation (random number table or sealed envelopes). Blinding: Assessor- and analyst-blinded (outcome assessor and statistician blinded to group allocation).

Settings and conduct

Setting: Poria-ye Vali Sports Hall, Malayer, Hamedan Province, Iran. Procedures: Recruitment via public call and clinic referrals; baseline assessment (demographics, VAS, goniometer ROM, DASH, WORC); supervised interventions; post-intervention assessment at week 9 using the same measures. Safety measures and taping protocol followed in all sessions.

Participants/Inclusion and exclusion criteria

Women aged 40–60 years with primary frozen shoulder diagnosed by an orthopedic specialist. Sample size: 30 participants (two groups of 15).

Intervention groups

Group 1 (Intervention): Codman pendulum exercises + kinesiotape — 8 weeks, 3 sessions/week, 40 minutes/session. Kinesiotape applied to supraspinatus and deltoid per protocol (skin allergy test before first application). Group 2 (Active control): Codman pendulum exercises only — identical schedule and supervision, without kinesiotape.

Main outcome variables

1. Shoulder pain 2. Shoulder range of motion (flexion, abduction, external rotation) 3. Shoulder function

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20250923067339N1**
Registration date: **2025-11-18, 1404/08/27**
Registration timing: **prospective**

Last update: **2025-11-18, 1404/08/27**
Update count: **0**

Registration date

2025-11-18, 1404/08/27

Registrant information

Name

Mohadeseh Roostaei

Name of organization / entity

Razi University of Kermanshah

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2025-12-12, 1404/09/21

Expected recruitment end date

2026-01-12, 1404/10/22

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title
The effect of Codman exercises with and without kinesiotape on pain, range of motion, and functional tests in women with frozen shoulder

Public title
The effect of Codman exercises with and without kinesiotape on pain, range of motion, and functional tests in women with frozen shoulder

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Gender: Female Age: 40-60 years Diagnosis of primary frozen shoulder by an orthopedic specialis Presence of shoulder pain for at least 3 months Significant loss of active and passive range of motion of the shoulder joint No use of medication or other shoulder-related treatment Written consent to voluntarily participate in the study

Exclusion criteria:
History of shoulder fracture or dislocation Rotator cuff tear Neuromuscular disorders History of shoulder surgery within the past two years Skin sensitivity to kinesiology tape Missing more than two consecutive sessions of the training program

Age
From **40 years** old to **60 years** old

Gender
Female

Phase
N/A

Groups that have been masked

- Outcome assessor
- Data analyser

Sample size
Target sample size: **30**

Randomization (investigator's opinion)
Randomized

Randomization description
Participants will be allocated into two groups using simple randomization based on a random number table (or Random.org). Each eligible participant will receive an ID number, and the allocation will be performed by an independent person not involved in intervention delivery or outcome assessment.

Blinding (investigator's opinion)
Double blinded

Blinding description
The outcome assessor will be blinded to group allocation. All data will be coded and provided to the statistician without group labels to ensure blinded analysis. Due to the nature of exercise-based interventions, participant and therapist blinding is not feasible.

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Razi University Ethics Committee

Street address
Room 00, Faculty of Sport Sciences, Razi University, Daneshgah St., Taq Bostan

City
Kermanshah

Province
Kermanshah

Postal code
6714414971

Approval date
2025-09-20, 1404/06/29

Ethics committee reference number
IR.RAZI.REC.1404.026

Health conditions studied

1

Description of health condition studied
Adhesive Capsulitis / Frozen Shoulder

ICD-10 code
M75.0

ICD-10 code description
Adhesive capsulitis of shoulder

Primary outcomes

1

Description
Shoulder pain level

Timepoint
Before and after eight weeks of intervention

Method of measurement
Visual Analog Scale (VAS)

2

Description
Shoulder range of motion (flexion, abduction, external rotation)

Timepoint
Before and after eight weeks of intervention

Method of measurement
Standard goniometer

3

Description
Shoulder function

Timepoint

Before and after eight weeks of intervention

Method of measurement

DASH and WORC questionnaires

Secondary outcomes

1

Description

Raised hands test

Timepoint

Before and after 8 weeks

Method of measurement

Standard shoulder functional test (Hand to Head Test)

2

Description

Apley Scratch Test

Timepoint

Before and after 8 weeks

Method of measurement

Functional testing of shoulder flexion and rotation

3

Description

Shoulder Rotation Test

Timepoint

Before and after 8 weeks

Method of measurement

Evaluation of the active rotation range of the shoulder joint with a goniometer

4

Description

Changes in daily performance scores

Timepoint

Before and after 8 weeks

Method of measurement

WORC questionnaire performance items

5

Description

Perception of overall improvement from treatment

Timepoint

Before and after 8 weeks

Method of measurement

Participant's mental question (Global Perceived Effect)

Intervention groups

1

Description

Intervention group: Cadman exercises with kinesiotape

Category

Rehabilitation

2

Description

Control group: Cadman exercises without kinesiotape

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Pouriya Vali Sports Hall

Full name of responsible person

Farzaneh Maleki

Street address

Hamzeh Loyy Street, opposite the Martyr Sardar Soleimani School, Amir Kabir Square, Shohada Street

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Malayer

Province

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University of Razi

Full name of responsible person

Keyvan Amini

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

The University of Razi

Proportion provided by this source

100

Public or private sector

Public

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
The University of Razi
Full name of responsible person
Manouchehr Heidari
Position
Assistant Professor
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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
Not applicable
Informed Consent Form
Undecided - It is not yet known if there will be 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
Not applicable
Title and more details about the data/document
Some of the data can be shared after de-identifying the subjects.
When the data will become available and for how long
3 months after results are published
To whom data/document is available
All persons upon formal request
Under which criteria data/document could be used
درخواست دسترسی به داده ها با هر هدفی مجاز است
From where data/document is obtainable
If you need to receive documents, please send an email to Manouchehr Heidari, Assistant Professor of Pathology and Corrective Exercises Department, Razi University, at the email address: mhaidary2000@yahoo.com.
What processes are involved for a request to access data/document
In case of formal request, stating the relevant reasons

and providing full details, the data will be sent via email after 72 hours.

Comments