

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

The effect of adding proprioception exercises to corrective exercises on foot posture, ankle's proprioception and balance on 9- 12 years in girls with flat foot and hallux valgus

Protocol summary

Study aim

Determining the effect of adding proprioception exercises to corrective exercises on foot posture, ankle proprioception, and balance in 9-12-year-old girls with flat feet and hallux valgus

Design

A clinical trial study, with simple random sampling, without blinding, on 42 participants

Settings and conduct

Evaluations will be done before and after the intervention. Exercises in the intervention groups will be held for 6 weeks, 3 sessions for one hour each week in the correctional center of Quds city. To detect flat foot from the navicular drop test, to detect the degree of hallux valgus from the goniometer, to determine the foot posture from the foot posture index test, to measure the proprioception of the foot from the goniometer and to evaluate Static balance will be used from the bass stick test and dynamic balance will be used from the modifi star test.

Participants/Inclusion and exclusion criteria

The conditions of entry are: 1) Girls 9 to 12 years old 2) Has flexible flat foot and hallux valgus, 3) Normal body mass index The conditions of non-entry are: 1) Non-participation of the subject in three consecutive sessions. 2) Causing pain during the research process. 3) Orthopedic injury in the lower limb such as fracture, ankle sprain, tendon rupture, ...

Intervention groups

Intervention group one (corrective exercises) The exercises of this group include short foot exercises, which is intervention group two (corrective exercises with proprioceptive exercises) In this group, in addition to the corrective exercises of intervention group one, proprioceptive exercises are also performed. It will be done first at a stable level and then at an unstable level. The control group will not do any type of intervention

during the 6 weeks of interventions and will only participate in the pre-test and post-test.

Main outcome variables

Foot posture, Ankle proprioception and balance

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220723055526N1**

Registration date: **2022-08-23, 1401/06/01**

Registration timing: **registered_while_recruiting**

Last update: **2022-08-23, 1401/06/01**

Update count: **0**

Registration date

2022-08-23, 1401/06/01

Registrant information

Name

Zahra Darabi

Name of organization / entity

Kharazmi university

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-07-23, 1401/05/01

Expected recruitment end date

2022-09-06, 1401/06/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of adding proprioception exercises to corrective exercises on foot posture, ankle's proprioception and balance on 9- 12 years in girls with flat foot and hallux valgus

Public title

The effect of adding proprioception exercises to corrective exercises on foot posture, ankle's proprioception and balance in girls with flat foot and hallux valgus

Purpose

Supportive

Inclusion/Exclusion criteria**Inclusion criteria:**

Girls 9-12 years old Has flexible flat foot and hallux valgus Normal body mass index

Exclusion criteria:

Lower extremity pain Over weight or obesity Non-participation of the subject in three consecutive sessions Causing pain during the research process Orthopedic injury in the lower limb such as fracture,ankle sprain,tendon rupture,...No foot surgery,systemic disease that effects the lower limb or the pasture of the foot such as cerebral palsy,rickets

AgeFrom **9 years** old to **12 years** old**Gender**

Female

Phase

N/A

Groups that have been masked*No information***Sample size**Target sample size: **42****Randomization (investigator's opinion)**

Randomized

Randomization description

Patients are randomly divided into three groups by hidden sealed envelope randomization method. In such a way that an equal number of types of interventions are written on sheets of the same size and the sheet is folded in such a way that the type of interventions is not clear. If the patient is selected for the study, the parents randomly take a sheet from the envelope that shows the type of interventions.

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**

Research Institute of Physical Education and Sports Sciences

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N3,Fifth Alley,Mir Emad Street,Ostad Motahari Street,Tehran

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1587958711

Approval date

2022-07-20, 1401/04/29

Ethics committee reference number

IR.SSRC.REC.1401.043

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

Flexible flat foot

ICD-10 code

M21.4

ICD-10 code description

Flat foot [pes planus] (acquired)

2**Description of health condition studied**

Hallux valgus

ICD-10 code

M20.1

ICD-10 code description

Hallux valgus (acquired)

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

Foot posture

Timepoint

Before intervention and after 6 weeks of intervention

Method of measurement

It is evaluated by the foot posture index

2**Description**

Ankle proprioception

Timepoint

Before intervention and after 6 weeks of intervention

Method of measurement
Goniometer

3

Description
Balance

Timepoint
Before intervention and after 6 weeks of intervention

Method of measurement
To evaluate the static balance of the bass stick test and the dynamic balance of the modified star or Y test

Secondary outcomes

empty

Intervention groups

1

Description
The first intervention group: People in this group do corrective exercises for 6 weeks, 3 sessions per week and 1 hour in each session, for a total of 18 sessions. These short foot exercises will be given from the unladen position to the loaded standing positions.

Category
Rehabilitation

2

Description
The second intervention group: People in this group will do corrective exercises along with proprioception exercises for 6 weeks, 3 sessions per week and each session for an hour, in total 18 sessions, in such a way that these exercises will be performed on a stable surface at first and on an unstable surface in the advanced stages.

Category
Rehabilitation

3

Description
Control group: The control group will not do any exercises for 6 weeks and will only participate in the pre-test and post-test.

Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Shahr Quds schools

Full name of responsible person
Zahra Darabi

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No.1, 7th East Alley, Hanrestan Street, Moshiriyeh

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
kharazmi University

Full name of responsible person
Malihe Hadadnezhad

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?
No

Title of funding source
This study was conducted by researchers and no institutional funding was received

Proportion provided by this source
100

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
Persons

Person responsible for general inquiries

Contact

Name of organization / entity
kharazmi University

Full name of responsible person
Malihe Hadadnezhad

Position
Assistant Professor

Latest degree
Ph.D.

Other areas of specialty/work
Corrective Exercises

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Person responsible for scientific inquiries

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Person responsible for updating data

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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

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is 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

Only data related to demographics and outcomes are shared.

When the data will become available and for how long

After printing the article/Article extracted from the study

To whom data/document is available

The data can be displayed and shared by the Iran Clinical Trial Registration Center, journals, and academic individuals/researchers who are conducting research and scientific activities in this field upon reasonable request.

Under which criteria data/document could be used

Data analysis and the use of documents can only be done under the condition that their results are mentioned in systematic review articles conducted by academic researchers and authors. The necessary conditions for sending data and documents include 1. Sending an email to one of the researchers of the study 2. A brief and logical explanation regarding the use of data or documents. 3. Ensuring the registration of the protocol of systematic review studies that have requested access to data or documents. Community Verified icon

From where data/document is obtainable

By requesting the study researchers Zahra Darabi darabida4@gmail.com Malihe Hadadnezhad m.hadadnezhad@yahoo.com Mehdi Khaleghi Mehdikhaleghi60@yahoo.com

What processes are involved for a request to access data/document

The applicant can request details using the message sent by email within 7 to 10 days.

Comments