Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 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 old2؛)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 session،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)
Phone
+98 21 3346 1763
Email address
zahradarabi@khu.ac.ir

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
Age
From **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
Street address
N3,Fifth Alley,Mir Emad Street,Ostad Motahari Street,Tehran
City
Tehran
Province
Tehran
Postal code
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

Street address

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

City

Tehran

Province

Tehran

Postal code

1855673553

Phone

+98 21 3346 1763

Email

darabida4@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

kharazmi University

Full name of responsible person

Malihe Hadadnezhad

Street address

Kharazmi University,Shahid Beheshti Street,Karaj

City

Karaj

Province

Alborz

Postal code

3197937551

Phone

+98 26 3457 9600

Email

m.hadadnezhad@yahoo.com

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
Street address
Kharazmi University, University Square,Beheshti Street,Karaj
City
Karaj
Province
Alborz
Postal code
3197937551
Phone
+98 26 3457 9600
Email
m.hadadnezhad@yahoo.com

Person responsible for scientific inquiries

Contact
Name of organization / entity
kharazmi University
Full name of responsible person
Zahra Darabi
Position
University student
Latest degree
Bachelor
Other areas of specialty/work
Others
Street address
No.1,7th East Alley, Hanrestan Street,Moshirieh
City
Tehran
Province
Tehran
Postal code
1855673553
Phone
+98 21 3346 1763
Email
darabida4@gmail.com

Person responsible for updating data

Contact
Name of organization / entity
kharazmi University
Full name of responsible person
Zahra Darabi
Position
University student
Latest degree
Bachelor
Other areas of specialty/work
Others
Street address
No.1,7th East Alley,Hanrestan street,Moshiriyeh
City
Tehran
Province
Tehran
Postal code
1855673553
Phone
+98 21 3346 1763
Email
darabida4@gmail.com

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 ZahraDarabi darabida4@gmail.com MaliheHadadnezhad 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