Clinical Trial Protocol
Iranian Registry of Clinical Trials

27 Oct 2026

Comparison of two proprioception and core stability training programs in the balance and gait kinematics parameters of deaf students.

Protocol summary

Study aim
The purpose of this study comparison of two proprioception and core stability training programs in the balance and gait kinematics parameters of deaf students

Design
In this study, 30 students who are deaf and criteria of the study, the deaf school in Rasht city elected. The participants were randomly divided into two groups: proprioception (10-person) and core stability (10 members) and a control group (10 people) is divided and each participant is assigned a code.

Settings and conduct
The current study is of clinical trial one aiming to Comparison of two proprioception and core stability training programs in the balance and gait kinematics parameters of deaf students. It will be used the BESS test for static balance, the SLS test for control posture, the Y test (YBT) for dynamic balance, an electrogonimetric device for the proprioception of joints, and a core stability muscle endurance test set; and it will be used to evaluate the gait kinematic parameters from digital cameras and then using Kinava software.

Participants/Inclusion and exclusion criteria
The inclusion criteria: age of 15-18; hearing range of more than 75 db and avoidance of medicines that affect balance during research procedure. The exclusion criteria: avoidance of participating in the relevant sessions and not completing the length of training period; cardiovascular and respiratory disease

Intervention groups
The first experimental group has performed proprioception training (without visual activity), the second experimental group has performed core stabilization training for 8 weeks and the control group did not receive any exercise programs.

Main outcome variables
- Rehabilitation of the Deaf - Improve the balance of the deaf - Improved postural control of the deaf - Improve the deafness of the deaf

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20170312033029N2**
Registration date: **2017-12-08, 1396/09/17**
Registration timing: **prospective**

Last update: **2018-04-03, 1397/01/14**
Update count: **1**

Registration date
2017-12-08, 1396/09/17

Registrant information
Name
Hamed Zarei
Name of organization / entity
University of Guilan
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Iran (Islamic Republic of)
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Recruitment status
Recruitment complete
Funding source
Guilan University of Medical Sciences

Expected recruitment start date
2017-12-22, 1396/10/01
Expected recruitment end date
2018-02-04, 1396/11/15
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparison of two proprioception and core stability training programs in the balance and gait kinematics parameters of deaf students.

Public title
The effect of exercise therapy on executive on functions of deaf students

Purpose
Supportive

Inclusion/Exclusion criteria

Inclusion criteria:
The inclination of participation in the research The refraining of tranquilizers or those with effects on balance The Lack of cochlear implantation The hearing range of more than 75 db. Avoidance of exercising or any intense activities during the research No lower limb damage background during the past 6 months or any neural or muscular complexities No eyesight disorder Lack of any status abnormalities effective in the procedure of the research (in the lower and upper limbs) Not surgical background in the past year Not a fracture in the upper and lower limbs a year prior to research Non-insulin-dependent diabetes Boys subjects

Exclusion criteria:
Lack of participation in two sequential practice sessions or in three interrupted practice sessions The advent of Musculoskeletal pain after practice Students suffering from multiple disabilities Students cardiovascular and respiratory diseases Students articular system and orthopedic disorders including neck pain, backache, rheumatoid arthritis or the apparent difference in the length of the limbs

Age
From **15 years** old to **18 years** old

Gender
Male

Phase
3

Groups that have been masked
No information

Sample size
Target sample size: **30**
More than 1 sample in each individual
Number of samples in each individual: **1**
In each person, the tests of balance, postural control and kinematic walking parameters are measured.

Randomization (investigator's opinion)
Randomized

Randomization description
Subjects were divided into experimental and control groups based on Sealed envelopes.

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
Ethics committee of Institute of Physical Education and Sport Sciences

Street address
No. 3, 5th St., Mir Emad St., Motehari Ave., Tehran, Iran.

City
Tehran

Province
Tehran

Postal code
1587958711

Approval date
2017-11-05, 1396/08/14

Ethics committee reference number
IR. SSRI. REC. 1396. 146

Health conditions studied

1

Description of health condition studied
Balance and gait kinematics parameters

ICD-10 code
Z02.5

ICD-10 code description
Encounter for examination for participation in sport

Primary outcomes

1

Description
Balance

Timepoint
Before intervention and 2 months after intervention and 6 months after the post-test.

Method of measurement
BESS Test and Y Test

2

Description
Postural control

Timepoint
Before intervention and 2 months after intervention

Method of measurement
SLS Test

3

Description
Proprioception

Timepoint
Before intervention and 2 months after intervention
Method of measurement
Electrogonometer device

4

Description
Core stability muscle endurance
Timepoint
Before intervention and 2 months after intervention
Method of measurement
Core stability test set

5

Description
Gait kinematics parameters
Timepoint
Before intervention and 2 months after intervention
Method of measurement
Digital camera and kinovea software

Secondary outcomes

empty

Intervention groups

1

Description
The proprioception training group will attend training sessions for 8 weeks (Every week three sessions and each session for 60 minutes) and their status will be evaluated before and two months after the intervention.
Category
Rehabilitation

2

Description
The core stability training group will attend training sessions for 8 weeks (Every week three sessions and each session for 60 minutes) and their status will be evaluated before and two months after the intervention.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Baghcheban Deaf School
Full name of responsible person
Hamed Zarei
Street address
Tarbiat Moallem University side , Tarbiat Moallem Square, Guilan Blvd Rasht city
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Postal code
4136718838
Email
zareei.h@yahoo.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellor for research, Guilan University of Medical Sciences
Full name of responsible person
Seyyed Ziaeddin Mirhosseini
Street address
Faculty of Physical Education, University of Guilan, Km 12 Rasht-Ghazvin Road
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4199613776
Phone
+98 13 3369 0274
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zareei.h@yahoo.com
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice chancellor for research, Guilan University of Medical Sciences
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
University of Guilan
Full name of responsible person
Hamed Zarei
Position
Postgradute
Latest degree
Master
Other areas of specialty/work

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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
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
The total potential data can be shared after unidentifiable people.
When the data will become available and for how long
Start the access period 6 months after printing the results.
To whom data/document is available
Everyone in the community can use it.
Under which criteria data/document could be used
- For deaf rehabilitation fields. - For trainers and sports science teachers. - in the field of occupational therapy. - In sports fields of the disabled.
From where data/document is obtainable
Applicants may refer to rehabilitation and sports science journals for receiving data.
What processes are involved for a request to access data/document
Extensions can be submitted to the following email address within six months after the results are printed. Email Address: zareei.h@yahoo.com
Comments