

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 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 electrogoniometric 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

Country

Iran (Islamic Republic of)

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+98 81 3536 3540

Email address

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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.

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Province

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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

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Tarbiat Moallem University side , Tarbiat Moallem Square, Guilan Blvd Rasht city

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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

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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

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

Postgraduate

Latest degree

Master

Other areas of specialty/work

Sport Medicine

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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