

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

26 Feb 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)

##### Phone

+98 81 3536 3540

##### Email address

zareei.hamed71@gmail.com

##### 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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**Province**

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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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**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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## Person responsible for scientific inquiries

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**Web page address**

## 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**