

Clinical Trial Protocol

Iranian Registry of Clinical Trials

19 Jun 2026

The Effect of a Walking Course with the Focus of External Attention on the Balance, Gait and Verbal Memory of Blinds

Protocol summary

Study aim

Evaluation of the effect of a walking period with the instructions of the external focus on balance, gait and verbal memory of the blind

Design

A two-group clinical trial, including a 9-person control group and an experimental 9-person group, one-way blind, was performed by simple random sampling on 18 blind people.

Settings and conduct

In the pre-test stage, Wexler static balance, dynamic balance, walking and expansive memory tests were taken. To perform static and dynamic balance test, foot scan device was used to record the pressure center and motion step analysis device was used to take steps.. The Wechsler Width Memory Test was also used to measure participants' short-term memory. Then, 9 people in the experimental group practiced walking for six weeks, three sessions per week and 20 minutes each session along with the instructions of the external focus, and the control group did not follow the purposeful training during this period. All statistical calculations were performed in SPSS software version 21 at a significant level ($P = 0.05$). measurements were performed at the Health Center of Mazandaran University.

Participants/Inclusion and exclusion criteria

Age 12 to 16 years, hearing impairment, no history of limb failure in the past year, no other Cognitive developmental disorders and lack of information other mental and physical

Intervention groups

1.The control group: 9 blind people without intervention during the study. 2.The experimental group: 9 blind people who intervened during the research

Main outcome variables

There was no significant difference between the mean of the center of pressure ($P=0.0629$), a distance of the center of pressure ($P=0.613$), and the range of pressure center in the external internal path ($P=0.428$) and

posterior-anterior path ($P=0.063$). Whereas this exercise period had a significant effect on the verbal memory of the blind ($P=0.035$).

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20201013049014N1**

Registration date: **2020-11-01, 1399/08/11**

Registration timing: **retrospective**

Last update: **2020-11-01, 1399/08/11**

Update count: **0**

Registration date

2020-11-01, 1399/08/11

Registrant information

Name

Fahimeh Hasanzade

Name of organization / entity

The University of Semnan

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-11-11, 1398/08/20

Expected recruitment end date

2019-11-21, 1398/08/30

Actual recruitment start date

2019-11-11, 1398/08/20

Actual recruitment end date

2019-11-21, 1398/08/30

Trial completion date

2020-01-10, 1398/10/20

Scientific title

The Effect of a Walking Course with the Focus of External Attention on the Balance, Gait and Verbal Memory of Blinds

Public title

The Effect of a Walking Course with the Focus of External Attention on the Balance, Gait and Verbal Memory of Blinds

Purpose

Supportive

Inclusion/Exclusion criteria**Inclusion criteria:**

Blind

Exclusion criteria:**Age**

From **12 years** old to **16 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **20**

Actual sample size reached: **18**

Randomization (investigator's opinion)

Randomized

Randomization description

First, participants in the study were categorized by gender and age. Each age group (12, 13, 14, 16, 15 years old girls and boys) was given a code in each gender and then the codes were randomly assigned to the control and experimental groups.

Blinding (investigator's opinion)

Single blinded

Blinding description

Participants in the study were blind people who were kept in daycare centers and entered the study voluntarily by completing the consent form. Subjects were randomly divided into experimental and control groups. The experimental group was told that they would participate in a training session to stay healthy, but they did not know the purpose of the exercises, which was to improve balance performance. However, at the end of the exercises and research, they were given an explanation about the results of the exercises, including changes in balance.

Placebo

Not used

Assignment

Other

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Research Ethics Committee of Mazandaran University

Street address

Mazandaran, Babolsar, University of Mazandaran

City

Babolsar

Province

Mazandaran

Postal code

۱۳۵۳۴-۴۷۴۱۶

Approval date

2020-09-15, 1399/06/25

Ethics committee reference number

IR.Umz.REC.1399.008

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

Blindness

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Static balance

Timepoint

At the beginning of the study (before the intervention) and 6 weeks after the interventions

Method of measurement

Foot scan

2**Description**

Dynamic balance

Timepoint

At the beginning of the study (before the intervention) and 6 weeks after the interventions

Method of measurement

Foot scan

3**Description**

Verbal memory and parrot-like memory assessment

Timepoint

At the beginning of the study (before the intervention) and 6 weeks after the interventions

Method of measurement

Wechsler's Memory

4

Description

Gait

Timepoint

At the beginning of the study (before the intervention) and 6 weeks after the interventions

Method of measurement

motion analysis

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: The experimental group performed walking exercises with using headphones and provided rhythmic auditory pulses for 6 weeks, three days a week for each session in the presence of a guide.

Category

Behavior

2

Description

Control group: The experimental group did not perform any exercises.

Category

Behavior

Recruitment centers

1

Recruitment center

Name of recruitment center

Haj Naser Mahdavi School

Full name of responsible person

Akram Aghagolzade

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Qaemshahr-Babol road, in front of Telar Hotel, at the beginning of the military road

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University of Semnan

Full name of responsible person

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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

The University of Semnan

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

The University of Mazandaran

Full name of responsible person

Mojggan Memarmoghaddam

Position

Consultant

Latest degree

Ph.D.

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be 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