

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

Comparison of the effectiveness of visual-auditory synchronization and cognitive rehabilitation on active memory and attention in students

Protocol summary

Study aim

Comparative study of the efficacy of phototherapy (AVE) and cognitive rehabilitation on active memory and attention

Design

Clinical trials without control group, with a pre-test and post-test group, one blind, randomized

Settings and conduct

Cognitive rehabilitation and phototherapy by AVE are two of the new therapeutic approaches that can be tested and used to repair cognitive defects. This study was conducted in a psychiatric clinic in Yazd. We used Wechsler memory test to assess the memory and IVA test was used to assess the level of attention. Data was analyzed using independent covariance analysis and independent t-test. SPSS software was used to analyze the data. This study was conducted in a blinded way, so that the participants did not know about the difference between the two methods.

Participants/Inclusion and exclusion criteria

Students aged between 18-40 years old having no metal body in the head, no headache, no history of metal body in the head or heart pacemaker, no history of seizure or other neurological disorders, no major physical illnesses and no Substance abuse, no use of medications that affect the nervous system in the past six months

Intervention groups

1. Cognitive Rehabilitation Group with Cagni Plus software 2. Audio Visual Sync Group with AVE Device

Main outcome variables

Active memory Attention

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180409039245N1**

Registration date: **2019-04-15, 1398/01/26**

Registration timing: **retrospective**

Last update: **2019-04-15, 1398/01/26**

Update count: **0**

Registration date

2019-04-15, 1398/01/26

Registrant information

Name

reyhaneh hosseini-rad

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 35 3629 0990

Email address

hosseini.rad@apk-group.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2017-07-23, 1396/05/01

Expected recruitment end date

2017-09-22, 1396/06/31

Actual recruitment start date

2017-07-23, 1396/05/01

Actual recruitment end date

2017-09-22, 1396/06/31

Trial completion date

empty

Scientific title

Comparison of the effectiveness of visual-auditory synchronization and cognitive rehabilitation on active memory and attention in students

Public title

Comparison of the effectiveness of visual-auditory synchronization and cognitive rehabilitation on active

memory and attention

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
 The inclusion criteria included: Students aged 18 to 40 years
Exclusion criteria:
 metal implants in head Headache Heart pacemaker
 History of seizure or other neurological disorders Critical illnesses and substance abuse Use of medications that affect the nervous system in the last six months

Age
From **18 years** old to **40 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Participant

Sample size
 Target sample size: **15**
 Actual sample size reached: **15**

Randomization (investigator's opinion)
Randomized

Randomization description
Thirty students were selected by purposive sampling method and allocated to two equal groups of cognitive rehabilitation (n = 15) and AVE (n = 15) using block randomization method

Blinding (investigator's opinion)
Single blinded

Blinding description
Participants were kept blind on the difference in the two methods of intervention, but the researcher was aware of this.

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee on Research in Islamic Azad University Yazd Branch

Street address

Islamic Azad University of Yazd (IAUY), Shohada-e Gomnam Blvd, Professor Hesabi st, Safaie

City

Yazd

Province

Yazd
Postal code
 8916871967
Approval date
 2018-05-15, 1397/02/25
Ethics committee reference number
 IR.IAU.YAZD.REC.1397.25

Health conditions studied

1

Description of health condition studied

Improve memory and attention

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

memory

Timepoint

two months

Method of measurement

Using Wechsler Memory Test

2

Description

attention

Timepoint

two months

Method of measurement

Using the IVA test

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Cognitive Rehabilitation

Category

Rehabilitation

2

Description

Intervention group: Audio visual entrainment

Category

Treatment - Devices

Recruitment centers

1

Recruitment center

Name of recruitment center

Imam Hossein Yazd Psychological Consulting and Services Center

Full name of responsible person

Hossein Janeballahi

Street address

Montazere Ghaem, Blvd

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Phone

+98 35 3724 0050

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Email

mirhoseini.h@gmail.com

Web page address

http://cps.yazdedu.ir

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**

Yazd University of Medical Sciences

Full name of responsible person

Dr. Hamid Mirhosseini

Position

University professor

Latest degree

Ph.D.

Other areas of specialty/work

Neurology

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Imam Hossein Yazd Psychological Consulting and Services Center

Full name of responsible person

Navid Nasiryzadeh

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mirhoseini.h@gmail.com

Web page address

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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

Imam Hossein Yazd Psychological Consulting and Services Center

Proportion provided by this source

5

Public or private sector

Private

Person responsible for scientific inquiries**Contact****Name of organization / entity**

Yazd University of Medical Sciences

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

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

Confidentiality

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Not applicable

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

Not applicable

Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

Memory scores and participants' attention in pre-test and post-test to examine the effects of interventions

When the data will become available and for how long

There is no time limit and can be used since publication.

To whom data/document is available

Researchers Related to This Thread

Under which criteria data/document could be used

In order to research more and more accurately

From where data/document is obtainable

Researcher responsible for this research

What processes are involved for a request to access data/document

Contact the researcher's email and submit the applicant's research documentation

Comments

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