

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 Jun 2026

The Effect of Cognitive Rehabilitation and Neurofeedback on Attention, Working Memory, Emotional Memory and Emotion Regulation in People with Stroke

Protocol summary

Study aim

Determining the difference in the effectiveness of cognitive rehabilitation and neurofeedback on attention, working memory, emotional memory and emotional regulation in people with stroke in the post-test and follow-up stages.

Design

Clinical trial with control group, with parallel groups, randomized, on 45 patients.

Settings and conduct

In order to carry out the research, after obtaining the necessary permits from Payam Noor University of Tehran, by referring to Imam Reza Hospital and coordinating with the officials of this hospital, the necessary information regarding the implementation and importance of this research was provided to them. In the next step, after identifying a number of people who meet the criteria for entering the research, according to talking to the head of the brain injury department and examining the patients' files, they were asked to cooperate.

Participants/Inclusion and exclusion criteria

People with stroke aged 40 to 65 years

Intervention groups

Cognitive rehabilitation treatment for 8 sessions on experimental group 1 and neurofeedback treatment for 8 sessions on experimental group 2 and the third group received a combination of cognitive rehabilitation and neurofeedback treatment.

Main outcome variables

Attention, Working Memory, Emotional Memory and Emotion Regulation

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230925059514N1**

Registration date: **2023-10-24, 1402/08/02**

Registration timing: **retrospective**

Last update: **2023-10-24, 1402/08/02**

Update count: **0**

Registration date

2023-10-24, 1402/08/02

Registrant information

Name

tayebeh mousabeygi

Name of organization / entity

Payame Noor University

Country

Iran (Islamic Republic of)

Phone

+98 21 2229 5747

Email address

mousabeygi_tayebeh@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-12-31, 1401/10/10

Expected recruitment end date

2023-01-30, 1401/11/10

Actual recruitment start date

2022-12-31, 1401/10/10

Actual recruitment end date

2023-01-30, 1401/11/10

Trial completion date

2023-01-30, 1401/11/10

Scientific title

The Effect of Cognitive Rehabilitation and Neurofeedback

on Attention, Working Memory, Emotional Memory and Emotion Regulation in People with Stroke

Public title

The Effect of Cognitive Rehabilitation and Neurofeedback on Attention, Working Memory, Emotional Memory and Emotion Regulation in People with Stroke

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Age range 40 to 65 years Suffering from one of the types of thrombotic, ischemic and hemorrhagic stroke and definitive diagnosis of the disease by a specialist doctor More than 3 months have not passed since their illness

Exclusion criteria:

Participation in other similar psychological intervention programs History of other psychiatric diseases Absence in more than 3 treatment sessions

Age

From **40 years** old to **65 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **45**

Actual sample size reached: **45**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization, block

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 Payame Noor University of Tehran

Street address

No. 27, Falahpour Ave., Ferdosi Blvd., Tehran Town

City

Tehran

Province

Tehran

Postal code

1599959515

Approval date

2022-12-21, 1401/09/30

Ethics committee reference number

IR.PNU.REC.1401.405

Health conditions studied

1

Description of health condition studied

Stroke

ICD-10 code

G46.3

ICD-10 code description

Brain stem stroke syndrome

Primary outcomes

1

Description

Attention, Working Memory, Emotional Memory and Emotion Regulation

Timepoint

Measurement of attention, working memory, emotional memory and emotional regulation at the beginning of the study (before the start of the intervention), 60 days after the start of the intervention and 60 days after the end of the intervention

Method of measurement

Gross Emotion Regulation Questionnaire, Kaheel Emotional Memory Test, Working Memory Test (N-Back), Wisconsin Card Sorting Test

Secondary outcomes

1

Description

Executive functions

Timepoint

Measurement of Executive functions at the beginning of the study (before the start of the intervention), 60 days after the start of the intervention and 60 days after the end of the intervention

Method of measurement

Wisconsin card classification test

Intervention groups

1

Description

Intervention group: Cognitive Rehabilitation

Category

Other

2

Description

Intervention group: Neurofeedback

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Imam Reza Hospital

Full name of responsible person

Sirous nasiri

Street address

the end of the nurse's Blvd, Kermanshah Town

City

Kermanshah

Province

Kermanshah

Postal code

6742775333

Phone

+98 83 3427 6300

Email

irhk@kums.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Payam Noor university

Full name of responsible person

Vice President of Research and Technology of Payam
Noor University

Street address

Payam Noor University, Nakhel Street, Army Blvd.,
Mini City, Tehran

City

Tehran

Province

Tehran

Postal code

19395-4697

Phone

+98 21 2332 0000

Email

NETadmin@pnu.ac.ir

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Payam Noor university

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

Payam Noor university

Full name of responsible person

Tayebeh Mousabeygi

Position

PhD student

Latest degree

Master

Other areas of specialty/work

Psychology

Street address

Payam Noor University, Shahnaz Alley, Safa Alley,
Mahmoud Nouryan St., North Dibaji St., Fermaniye, Tehran

City

Tehran

Province

Tehran

Postal code

1953633511

Phone

+98 21 2229 5747

Email

mousabeygi_tayebeh@yahoo.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Payam Noor university

Full name of responsible person

Dr. Hossein Zare

Position

Professor

Latest degree

Ph.D.

Other areas of specialty/work

Psychology

Street address

Payam Noor University, Shahnaz Alley, Safa Alley,
Mahmoud Nouryan St., North Dibaji St., Fermaniye, Tehran

City

Tehran

Province

Tehran

Postal code

1953633511

Phone

+98 21 2229 5747

Email

h_zare@pnu.ac.ir

Person responsible for updating data

Contact

Name of organization / entity

Payam Noor university

Full name of responsible person

Tayebeh Mousabeygi

Position

PhD student

Latest degree

Master

Other areas of specialty/work

Psychology

Street address

Payam Noor University, Shahnaz Alley, Safa Alley,
Mahmoud Nouryan St., North Dibaji St., FermaniyeH,
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mousabeygi_tayebeh@yahoo.com

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

No - There is not a plan to make this available

Title and more details about the data/document

The results related to the comparison of the effectiveness of the treatments on the dependent variables are presented.

When the data will become available and for how long

6 months after the publication of the article

To whom data/document is available

Researchers working in academic and scientific institutions

Under which criteria data/document could be used

The use of the article is allowed by mentioning the source

From where data/document is obtainable

Corresponding author's email

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

A maximum of one week after sending the email

Comments