

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of the effectiveness of direct transcranial direct current stimulation(tDCS) and computer cognitive rehabilitation(cCRT) and Combination of tDCS with cCRT on the executive functions of Shiraz Univesrity college students addicted to social networks

Protocol summary

Study aim

comparing the effectiveness of transcranial direct current stimulation(tDCS) and computerized cognitive rehabilitation(cCRT) and the combined rehabilitation of tDCS and cCRT on the executive functions of students addicted to social networks

Design

The clinical trial is a semi-experimental type and the design of this research is a pre-test-post-test type with a control group and the research sample also includes 64 students who will be selected by voluntary available sampling method.

Settings and conduct

After the sampling by the published announcement, the pre-test will be implemented on the sample group and the interventions will be applied in the cognitive laboratory of Shiraz University on the experimental sample group according to the predetermined protocol. Nothing will be done on the sample group and finally, the post-test will be taken after the last intervention session.

Participants/Inclusion and exclusion criteria

Having an addiction to virtual social networks The minimum age is 18 years and the maximum age is 50 years Familiarity with using a computer Being healthy in terms of vision, hearing and movement abilities to complete the instructions and Use of computer Absence of open wounds on the scalp Absence of heart diseases, heart battery and history of seizures and epilepsy Absence of more than two sessions Unwillingness to continue rehabilitation Having severe mental or physical disorders Simultaneous participation in other rehabilitation programs

Intervention groups

This research includes 3 experimental groups (group one: transcranial direct current stimulation rehabilitation, group two: computerized cognitive rehabilitation

rehabilitation and group three: combined tDCS rehabilitation with cCRT) and 1 control group It will be inactive that the assignment of people in these 4 groups will be done randomly.

Main outcome variables

executive functions

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230103057038N1**

Registration date: **2023-05-18, 1402/02/28**

Registration timing: **prospective**

Last update: **2023-05-18, 1402/02/28**

Update count: **0**

Registration date

2023-05-18, 1402/02/28

Registrant information

Name

Seyedeh Sara Farajzadeh

Name of organization / entity

Shiraz University

Country

Iran (Islamic Republic of)

Phone

+98 44 3366 9086

Email address

sarafarajzadeh@hafez.shirazu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-06-10, 1402/03/20

Expected recruitment end date

2023-07-11, 1402/04/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effectiveness of direct transcranial direct current stimulation(tDCS) and computer cognitive rehabilitation(cCRT) and Combination of tDCS with cCRT on the executive functions of Shiraz Univesrity college students addicted to social networks

Public title

Comparison of the effectiveness of direct transcranial direct current stimulation and computer cognitive rehabilitation and Combination of tDCS with cCRT on the executive functions of students addicted to social networks

Purpose

Supportive

Inclusion/Exclusion criteria**Inclusion criteria:**

being addicted to social networks being a student The minimum age should be 18 years and the maximum age should be 50 years old being familiar with the basics of computers

Exclusion criteria:

Having an open wound on the scalp Having heart diseases, heart battery and a history of seizures and epilepsy and severe mental illnesses Suffering from visual, hearing and movement disabilities to complete the instructions and use the computer

Age

From **18 years** old to **45 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **80**

Randomization (investigator's opinion)

Randomized

Randomization description

64 sample people will be classified into 4 groups by simple random method (3 groups of tDCS, cCRT and a combination of these two and 1 control group), the randomization will be done in such a way that the names of the sample people will be written on papers and placed in the container. Then people will be randomly entered into each group by choosing their names from the container.

Blinding (investigator's opinion)

Not blinded

Blinding description**Placebo**

Not used

Assignment

Factorial

Other design features**Secondary Ids**

empty

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

Ethics committee of Shiraz University

Street address

No. 45, Jafari Street; Tarighat Alley; Saadi2 Alley; Urmia; West Azerbaijan

City

Shiraz

Province

Fars

Postal code

5715167345

Approval date

2022-12-14, 1401/09/23

Ethics committee reference number

IR.US.REC.1401.035

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

Social Network Addiction

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

Executive Functions(Working Memory- Sustained Attention- Cognitive Flexibility- Response Inhibition- Problem Solving And Planning)

Timepoint

Before the intervention - immediately after the end of the intervention - 90 days after the end of the intervention

Method of measurement

Wisconsin Cards Test, Stop-Sign Test, Tower of London Test, Continuous Performance Test, N-Back Memory Test

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Transcranial Direct Current Stimulation

Category

Treatment - Devices

2

Description

Intervention group: Captain Log Cognitive Rehabilitation Computer Software

Category

Treatment - Other

3

Description

Intervention group: combined rehabilitation of Transcranial Direct Current Stimulation and Captain Log Cognitive Rehabilitation Computer Software

Category

Treatment - Devices

4

Description

Control group: They will not receive intervention

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Shiraz University

Full name of responsible person

Abdulaziz Aflakseir

Street address

No. 45, Jafari Street; Tarighat Alley; Saadi2 Alley; urmia

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sarafjrj.1996@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University

Full name of responsible person

Dr Abdulaziz Aflakseir

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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

Shiraz 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

Shiraz University

Full name of responsible person

Seyedeh Sara Farajzadeh

Position

دانشجو

Latest degree

Bachelor

Other areas of specialty/work

Psychology

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Shiraz University

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Person responsible for updating data

Contact

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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

There is no further information

Study Protocol

Yes - There is 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

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is 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

Title and more details about the data/document

The protocol, consent form and the results report will be published 6 months after the publication of the article

When the data will become available and for how long

6 months after the publication of the article - from 1402

To whom data/document is available

Researchers working in academic institutions

Under which criteria data/document could be used

1- Mentioning the author's name and referring to her 2- Failure to conduct researchs that are very similar to this research 3- Using documents after the article is published

From where data/document is obtainable

email:sarafajrj.1996@gmail.com

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

Send an email to the author and explain the necessity of requesting documents and a summary of the research

Comments