

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

25 Jun 2026

### The effectiveness of transcranial direct current stimulation on executive functions, the severity of obsessive-compulsive symptoms, and rumination in people with obsessive-compulsive symptoms

#### Protocol summary

##### Study aim

The effectiveness of transcranial direct current stimulation on executive functions, the severity of obsessive-compulsive symptoms, and rumination in people with obsessive-compulsive symptoms

##### Design

This clinical trial has two groups: control and intervention. This is a randomized, double-blind, phase 2-3 study with 38 patients. Randomization will be done using random numbers created by the computer. The patient and the data analyzer are blind.

##### Settings and conduct

Qualified patients will be randomly divided into intervention and control groups each one with 20 patients. Accidental randomization will be performed based on the randomization table. This clinical trial has a community-based, action-oriented control group with parallel and double-blind groups. The patient and the data analyzer are blind. This study will be done in Golestan hospital, Ahvaz

##### Participants/Inclusion and exclusion criteria

Included criteria: obtaining a cut-off score on Madzley's obsessive-compulsive disorder questionnaire; failure to receive psychological treatment at the same time; age between 18 and 60 years old. Exclusion criteria: severe physical illnesses such as cancer or epilepsy; concomitant participation in any type of psychotherapy; severe organic brain disorder.

##### Intervention groups

In the intervention group, stimulation with the right anode and left cathode is performed by a specialist technician without the knowledge of the subject and the experimenter. The intervention will be performed randomly with an intensity of 2 mA on the posterior-lateral forehead area. The protocol is 8 sessions of 30 minutes every 3 days measurements will be done one hour after the end of the session. Control group: the right

anode and left cathode will place on the forehead by an experienced technician with no knowledge of the subject but the machine will not turn on.

##### Main outcome variables

Algebraic obsessive-compulsive disorder

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20220220054069N1**

Registration date: **2022-03-07, 1400/12/16**

Registration timing: **prospective**

Last update: **2022-03-07, 1400/12/16**

Update count: **0**

##### Registration date

2022-03-07, 1400/12/16

##### Registrant information

##### Name

Shahin Norouzi

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 61 3620 1853

##### Email address

norouzi-s@ajums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2022-04-21, 1401/02/01

##### Expected recruitment end date

2022-06-24, 1401/04/03

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

The effectiveness of transcranial direct current stimulation on executive functions, the severity of obsessive-compulsive symptoms, and rumination in people with obsessive-compulsive symptoms

**Public title**

The effectiveness of transcranial direct current stimulation on people with obsessive-compulsive symptoms

**Purpose**

Treatment

**Inclusion/Exclusion criteria****Inclusion criteria:**

Obtaining a cut-off score on Madzley's obsessive-compulsive disorder questionnaire Failure to receive psychological treatment at the same time Age between 18 and 60 years old Having at least an eighth years education

**Exclusion criteria:**

Severe physical illnesses such as cancer or epilepsy Severe organic brain disorder Simultaneous participation in any type of psychotherapy Having bipolar and psychotic symptoms

**Age**From **18 years** old to **60 years** old**Gender**

Both

**Phase**

2-3

**Groups that have been masked**

- Participant
- Data analyser

**Sample size**Target sample size: **38****Randomization (investigator's opinion)**

Randomized

**Randomization description**

Randomization will be done using random numbers created by the computer. Random sequence generation software is used to generate numbers. Each random sequence is recorded on a card and the cards are sealed inside the envelope. At the beginning of the registration of participants, based on the order of entry of eligible participants into the study, one of the envelopes of the letter is opened in order and the assigned group of the participant is revealed..

**Blinding (investigator's opinion)**

Double blinded

**Blinding description**

The double-blind side includes the patient and the person who is responsible for analyzing the data. The patient knows that he has participated in a study but does not know what treatment is receiving. The person

who is responsible for analyzing the data does not know which patient was involved in the intervention group.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

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

Ethics committee of Ahvaz Jundishapur University of Medical Sciences

**Street address**

Golestan Blvd, Ahvaz, Khoozestan

**City**

Ahvaz

**Province**

Khoozestan

**Postal code**

6135715794

**Approval date**

2021-12-28, 1400/10/07

**Ethics committee reference number**

IR.AJUMS.HGOLESTAN.REC.1400.152

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

Obsessive-compulsive disorders

**ICD-10 code**

F42

**ICD-10 code description**

Obsessive-compulsive disorder

**Primary outcomes****1****Description**

Algebraic obsessive-compulsive disorder

**Timepoint**

Before and after the intervention

**Method of measurement**

Madzley Obsessive-Compulsive Disorder Questionnaire

**2****Description**

The severity of obsessive-compulsive symptoms

**Timepoint**

Before and after the intervention

**Method of measurement**

**3****Description**

Executive functions

**Timepoint**

Before and after the intervention

**Method of measurement**

Questionnaire

**Secondary outcomes**

empty

**Intervention groups****1****Description**

Intervention group: in the intervention group, stimulation with the right anode and left cathode is performed by a specialist technician without the knowledge of the subject and the experimenter. The intervention will be performed randomly with an intensity of 2 mA on the posterior-lateral forehead area. The protocol is 8 sessions of 30 minutes with three-day intervals and the measurements will be done one hour after the end of the session.

**Category**

Treatment - Other

**2****Description**

Control group: The right anode and left cathode will place on the forehead by an experienced technician with no knowledge of the subject but the machine will not turn on.

**Category**

Treatment - Other

**Recruitment centers****1****Recruitment center****Name of recruitment center**

Psychiatry Clinic, Golestan Hospital

**Full name of responsible person**

Shahin Norouzi

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Ahvaz Golestan Hospital, Golestan Blvd,Ahvaz

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

Ahvaz University of Medical Sciences

**Full name of responsible person**

Mehrnoosh Zaker Kish

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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**

Ahvaz University of Medical Sciences

**Proportion provided by this source**

100

**Public or private sector**

Private

**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**

Ahvaz University of Medical Sciences

**Full name of responsible person**

Mohammad Jahanseir chooshali

**Position**

Resident

**Latest degree**

Specialist

**Other areas of specialty/work**

Psychiatrics

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## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**  
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Associate professor  
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## Person responsible for updating data

### Contact

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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

No - There is not a plan to make this available

### Statistical Analysis Plan

No - There is not a plan to make this available

### Informed Consent Form

No - There is not a plan to make this available

### Clinical Study Report

No - There is not a plan to make this available

### Analytic Code

No - There is not a plan to make this available

### Data Dictionary

No - There is not a plan to make this available