

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Designing an integrated weight loss program and comparing its effectiveness with transcranial magnetic stimulation on attention bias, behavioral inhibition, craving and anthropometric indicators in obese women

Protocol summary

Study aim

Comparing the effectiveness of transcranial magnetic stimulation method and integrated weight loss program on attention bias, behavioral inhibition, craving and anthropometric indicators in obese women.

Design

In this research, the statistical population includes all people with 3rd and 4th degree of obesity who refer to nutrition clinics in Ardabil city. Considering that in experimental research, a minimum sample of 15 people is considered. Among the women with 3rd and 4th degree obesity, 45 people will be selected purposefully (15 people for each group). Then the questionnaires will be provided to each group for answering.

Settings and conduct

The application of therapeutic methods will be carried out in the psychology laboratory of the Faculty of Educational Sciences and Psychology of Mohaghegh Ardabili University

Participants/Inclusion and exclusion criteria

Have more than 25 kg of excess weight; have not used a diet; Age range between 20 and 50 years; Do not have chronic physical or mental illness

Intervention groups

We have three groups, treatment protocol is applied to two groups, one group is a psychological weight loss program and the other is transcranial magnetic stimulation, and no protocol is applied to the control group.

Main outcome variables

Thinness; magnetic stimulation; attentional bias; behavioral inhibition

General information

Reason for update

Acronym

RTMS

IRCT registration information

IRCT registration number: **IRCT20231216060430N1**

Registration date: **2024-03-01, 1402/12/11**

Registration timing: **retrospective**

Last update: **2024-03-01, 1402/12/11**

Update count: **0**

Registration date

2024-03-01, 1402/12/11

Registrant information

Name

Seyed Mohsen Nemati

Name of organization / entity

The University of Mohaghegh Ardabili

Country

Iran (Islamic Republic of)

Phone

+98 45 3333 4793

Email address

sm.nemati@uma.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-12-25, 1402/10/04

Expected recruitment end date

2024-02-19, 1402/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Designing an integrated weight loss program and comparing its effectiveness with transcranial magnetic stimulation on attention bias, behavioral inhibition, craving and anthropometric indicators in obese women

Public title

Comparing the effectiveness of psychological method and transcranial magnetic stimulation in weight loss

Purpose

Education/Guidance

Inclusion/Exclusion criteria

Inclusion criteria:

Women with grade 3 and 4 obesity Age: 20 to 50 years old BMI: 40-50 kg/m²

Exclusion criteria:

Performing slimming surgeries such as sleeve and liposuction Suffering from chronic physical and mental diseases Use of specific diets

Age

From **20 years** old to **60 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **45**

Randomization (investigator's opinion)

Randomized

Randomization description

The method of randomization is done by the flip coin method, which is used in two-group experiments. In such a way that we consider one of the study groups as the lion and the other group as the line. Based on the desired sample size, a coin is tossed and people are randomly assigned to two groups.

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

Research Ethics Committee of Mohaghegh Ardabili University

Street address

University Street, Mohaghegh Ardabili University

City

Ardabil

Province

Ardabil

Postal code

5614995638

Approval date

2023-11-30, 1402/09/09

Ethics committee reference number

IR.UMA.REC.1402.062

Health conditions studied

1

Description of health condition studied

Overweight and obesity problems

ICD-10 code

E65

ICD-10 code description

Obesity and other hyperalimentation

Primary outcomes

1

Description

Attention bias; Attention bias test based on probe dot task to evaluate the attention bias towards threatening faces compared to neutral and positive faces which was made by Moog and Bradley.

Timepoint

Attention bias will be measured at the beginning of the study and 60 days after the intervention

Method of measurement

Attention Bias: Based on the Probe Dot task

2

Description

Behavioral inhibition: It is a cognitive process in which people inhibit their natural, habitual or dominant impulses and behavioral responses to stimuli.

Timepoint

At the beginning of the study and 60 days after the start of the intervention

Method of measurement

Hoffman go/no go questionnaire

3

Description

Craving: refers to a strong desire to eat food that a person does not have the necessary control over eating behaviors

Timepoint

Craving: at the beginning of the study and 60 days after the start of the intervention

Method of measurement

Food Craving Questionnaire - Adjective (PFQ-T)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group first: This group receives psychological techniques for 1 month and 4 sessions for 1 hour each week

Category

Behavior

2

Description

Intervention group Second: This group receives transcranial magnetic stimulation by a neurologist for 1 month and 4 times a week for 7 minutes.

Category

Treatment - Other

3

Description

Control group: They do not receive any protocol

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Health and wellness center

Full name of responsible person

Behrooz Heidari

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Mohaghegh Ardabili University Daneshgah Street

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sm.nemati69@gmail.com

Web page address

https://uma.ac.ir/index.php?slc_lang=fa&sid=114

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The Mohaghegh Ardabili University

Full name of responsible person

Gabriel Razmjoo

Street address

Mohaghegh Ardabili University Daneshgah Street

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56489922645

Phone

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Email

razmjou@uma.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

The Mohaghegh Ardabili 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

Mohaghegh Ardabili University

Full name of responsible person

Seyed Mohsen Nemati

Position

phd student

Latest degree

Master

Other areas of specialty/work

Psychology

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Person responsible for scientific

inquiries

Contact

Name of organization / entity

The Mohaghegh Ardabili University

Full name of responsible person

Mohammad Narimani

Position

Professor

Latest degree

Ph.D.

Other areas of specialty/work

Psychology

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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

No - There is not 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

Not applicable

Data Dictionary

No - There is not a plan to make this available

Title and more details about the data/document

Part of the data, such as the information related to the main outcome, can be shared.

When the data will become available and for how long

The access period starts 4 months after the results are published

To whom data/document is available

Researchers working in academic and scientific institutions will be available

Under which criteria data/document could be used

No conditions are required other than sending the application according to the above

From where data/document is obtainable

Seyed Mohsen Nemati 09149554665 Mohaghegh Ardabili University, Faculty of Educational Sciences and Psychology

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

The applicant must have an academic email and an Orchid code

Comments

Person responsible for updating data

Contact

Name of organization / entity

Mohaghegh Ardabili University

Full name of responsible person

Seyed Mohsen Nemati

Position

phd student

Latest degree

Master

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