Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 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
Street address
Mohaghegh Ardabili University Daneshgah Street
City
Ardabil
Province
Ardabil
Postal code
5614995638
Phone
+98 45 3352 5522
Email
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
City
Ardabil
Province
Ardabil
Postal code
56489922645
Phone
+98 45 3150 5788
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
Street address
Mohaghegh Ardabili University Daneshgah Street
City
Ardabil
Province
Ardabil
Postal code
5614998653
Phone
+98 45 3333 4793
Email
sm.nemati69@gmail.com

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

Street address
Mohaghegh Ardabili University Daneshgah Street

City
Ardabil

Province
Ardabil

Postal code
5614965365

Phone
+98 45 3151 2625

Email
narimani@uma.ac.ir

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

Other areas of specialty/work
Psychology

Street address
Mohaghegh Ardabili University Daneshgah Street

City
Ardabil

Province
Ardabil

Postal code
5614998653

Phone
+98 45 3333 4793

Email
sm.nemati69@gmail.com

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