

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

The Efficacy of Emotional Working Memory Training on Impulsivity, Cognitive Emotion Regulation Strategies, and Executive Function in Individuals with Internet Addiction

Protocol summary

Internet addiction, cognitive emotion regulation strategies, executive functions

Study aim

assessment the efficacy of emotional working memory training in impulsivity, cognitive emotion regulation strategies and executive function of people with Internet addiction.

Design

The clinical trial has two experimental and control groups, with random assignment and a blind head. The number of participants in the project was 40 and with a drop of 4 people, finally 36 participants remained in the project. Emotional working memory training program was performed on the experimental group but the control group did not receive any intervention.

Settings and conduct

Due to the conditions related to the prevalence of Covid-19 virus, all steps were performed in absentia and using AnyDesk (Remote Desktop Software) software. First, all participants in the pre-test stage were initially evaluated, then the experimental group received the intervention and finally the final evaluation in the post-test stage was taken from two groups.

Participants/Inclusion and exclusion criteria

- All participants aged 17 to 23 who have been addicted to the Internet for more than two years.
- Participants do not have sensory or motor disabilities.
- The time of using the Internet during the day for non-working and non-educational purposes is more than 8 hours.
- Participants have informed consent to participate in the treatment.
- Participants receive other therapeutic interventions such as medication or psychological therapies while participating in the study.
- Participants do not attend training sessions regularly.

Intervention groups

Emotional working memory training program was performed on the experimental group for 20 sessions but no intervention was performed on the control group.

Main outcome variables

General information

Reason for update

Acronym

eWMT

IRCT registration information

IRCT registration number: **IRCT20210828052309N1**

Registration date: **2021-12-31, 1400/10/10**

Registration timing: **retrospective**

Last update: **2021-12-31, 1400/10/10**

Update count: **0**

Registration date

2021-12-31, 1400/10/10

Registrant information

Name

Fatemeh Shahrajabian

Name of organization / entity

Kharazmi University

Country

Iran (Islamic Republic of)

Phone

+98 31 4575 3054

Email address

f.shahragabian341375@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-10-21, 1399/07/30

Expected recruitment end date

2021-08-22, 1400/05/31

Actual recruitment start date

2020-10-21, 1399/07/30
Actual recruitment end date
 2021-04-18, 1400/01/29
Trial completion date
 2021-08-22, 1400/05/31

Scientific title
 The Efficacy of Emotional Working Memory Training on Impulsivity, Cognitive Emotion Regulation Strategies, and Executive Function in Individuals with Internet Addiction

Public title
 The Efficacy of Emotional Working Memory Training on Impulsivity, Cognitive Emotion Regulation Strategies, and Executive Function in Individuals with Internet Addiction

Purpose
 Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
 All participants aged 17 to 23 who have been addicted to the Internet for more than two years. Participants do not have sensory or motor disabilities. The time of using the Internet during the day for non-working and non-educational purposes is more than 8 hours. Participants have informed consent to participate in the treatment.
Exclusion criteria:
 Participants receive other therapeutic interventions such as medication or psychological therapies while participating in the study. Participants do not attend training sessions regularly.

Age
 From **17 years** old to **23 years** old

Gender
 Both

Phase
 N/A

Groups that have been masked

- Participant

Sample size
 Target sample size: **40**
 Actual sample size reached: **36**

Randomization (investigator's opinion)
 Randomized

Randomization description
 As soon as each participant enters the project, they will be assigned a code. In order to be divided into two experimental and control groups, all the codes are written on sheets and from them, at first, 20 people will be randomly selected from the voting container for the experimental group and the rest for the control group.

Blinding (investigator's opinion)
 Single blinded

Blinding description
 In assigning to two experimental and control groups, participants are not aware of the existence of two groups. The only explanation given to the control group is that due to a series of defects in the reward process and the deletion of the test results in the first stage (pre-test), treatment begins with a delay. Finally, after taking the post-test and following up and extracting the results, the treatment process is performed for the control group.

Placebo
 Used
Assignment
 Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Kharazmi University Ethics Committee, headquarters of the Ministry of Health and Medical Education

Street address

Kharazmi University, Shahid Beheshti Boulevard, Hesarak, Karaj, Alborz Province

City

Karaj

Province

Alborz

Postal code

3197937551

Approval date

2021-06-14, 1400/03/24

Ethics committee reference number

IR.KHU.REC.1400.003

Health conditions studied

1

Description of health condition studied

individuals with internet addiction

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Percentage of people who score more than 60 on the Young Internet Addiction Questionnaire.

Timepoint

Measuring Internet addiction before performing emotional working memory training and after completing twenty sessions.

Method of measurement

Young Internet Addiction Questionnaire, a semi-structured Internet addiction interview

2

Description

The score that the participants obtains in the Garnefski Cognitive Emotion Regulation Questionnaire.

Timepoint

Measuring Cognitive Emotion Regulation before performing emotional working memory training and after completing twenty sessions.

Method of measurement

Garnefski Cognitive Emotion Regulation Questionnaire - Short Form

3

Description

Inhibition

Timepoint

Measuring Inhibition before performing emotional working memory training and after completing twenty sessions.

Method of measurement

Go/No-go task

4

Description

attention

Timepoint

Measuring attention before performing emotional working memory training and after completing twenty sessions.

Method of measurement

Continuous Performance Test

5

Description

Working Memory

Timepoint

Measuring Working Memory before performing emotional working memory training and after completing twenty sessions.

Method of measurement

Wechsler Working Memory Scale

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Participants in the intervention group received 20 sessions of 30 to 45 minutes of emotional working memory training. In the present study, we aimed to treat the cognitive and emotional deficits associated with Internet addiction using the eWMT protocol developed by Schweizer et al. (2013; 2011). The basic goal of this treatment is to strengthen the cognitive and emotional functions of the brain (functions related to the prefrontal lobe; Krause-Utz et al., 2014). It is a dual emotional working memory training program that focuses on improving attention, inhibition, emotional regulation, and working memory. In addition to cognitive training, participants also receive emotional training (using visual and auditory stimuli). Participants indicate

whether a face they are currently seeing is in the same spatial location as one presented previously and/or whether a word they hear is the same as the one heard previously. For optimal task performance, the affective content of the faces must be ignored, while the participant focuses on the content of the words. Continuous eWMT training (20 - 40 minute sessions) has resulted in significant progress for improving short-term memory performance in encrypting, storing, manipulating, and retrieving emotional information. Meetings were held every other day.

Category

Rehabilitation

2

Description

Placebo group. In the placebo group, participants viewed two panels with geometrical shapes on a computer screen. The top panel presented three target shapes, which the participants had to identify with a mouse click in the bottom of the panel. These panels included 5-13 distractor shapes in addition to the targets. The number of distractors included with the targets was random

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Kharazmi University

Full name of responsible person

Fatemeh Shahrajabian

Street address

Kharazmi University, Beheshti Blvd, Hesarak, Karaj, Alborz Province,

City

Karaj

Province

Alborz

Postal code

3197937551

Phone

+98 31 4575 3057

Email

f.shahragabian341375@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Kharazmi University

Full name of responsible person

Dr. Jamshid Shanbehzadeh

Street address

Kharazmi University, Beheshti Blvd, Hesarak, Karaj, Alborz Province

City
Karaj

Province
Alborz

Postal code
3197937551

Phone
+98 26 3457 9600

Email
jamshid@khu.ac.ir

Grant name

Grant code / Reference number

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

Title of funding source
Kharazmi University

Proportion provided by this source
1

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
Kharazmi University

Full name of responsible person
Fatemeh Shahrajabian

Position
Masters student

Latest degree
Bachelor

Other areas of specialty/work
Psychology

Street address
Kharazmi University, Beheshti Blvd, Hesarak, Karaj, Alborz Province

City
Karaj

Province
Alborz

Postal code
3197937551

Phone
+98 31 4575 3057

Email
f.shahragabian341375@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity
Kharazmi University

Full name of responsible person
Fatemeh Shahrajabian

Position
Masters student

Latest degree
Bachelor

Other areas of specialty/work
Psychology

Street address
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City
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Province
Alborz

Postal code
3197937551

Phone
+98 31 4575 3057

Email
f.shahragabian341375@gmail.com

Person responsible for updating data

Contact

Name of organization / entity
Kharazmi University

Full name of responsible person
Fatemeh Shahrajabian

Position
Masters student

Latest degree
Bachelor

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Psychology

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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

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

Due to the fact that personal details such as surnames are not received from the participants and only at the beginning of the treatment period, separate codes are assigned to each participant, so the results can be collected in the form of programs such as Excel or SPSS has the ability to share.

When the data will become available and for how long

Two years after the results were published

To whom data/document is available

Only researchers working in scientific and academic institutions

Under which criteria data/document could be used

The data are presented under conditions from which no research article has been extracted and any use of it is with the permission of the main researcher.

From where data/document is obtainable

Contact the following email:
f.shahragabian341375@gmail.com

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

Send an email explaining the reason for the data request to the announced email address. If approved, the request will be sent within a week.

Comments