

Clinical Trial Protocol

Iranian Registry of Clinical Trials

31 May 2026

Comparison of the Effectiveness of Virtual Reality Exposure Therapy with Eye Movement Desensitization and Reprocessing Therapy on Symptoms of Acrophobia and Anxiety Sensitivity in Adolescent Girls

Protocol summary

Study aim

The purpose of this study is to compare the effectiveness of Virtual Reality Exposure Therapy (VRET) with Eye Movement Desensitization and Reprocessing (EMDR) therapy on symptoms of acrophobia and anxiety sensitivity.

Design

Clinical trial with control group, with parallel groups, one-way blind, randomized, phase 2 on 45 patients. A table of random numbers was used for randomization.

Settings and conduct

Following randomization and assignment of individuals in the study groups, patients are treated approximately twice a week using VRET or EMDR. This study is performed in the psychology department of Persian Gulf University.

Participants/Inclusion and exclusion criteria

participants: 45 female students. Inclusion criteria: a score greater than or equal to 50, fulfilling all diagnostic criteria of specific phobia (i.e., acrophobia) based on the SCID-5, and providing written informed consent for participation in the study by participants and their parents. Exclusion criteria: patients with hearing or visual impairment such as stereoscopy blindness or nystagmus, presence of any other mental disorders as assessed using the structured clinical interview, presence of specific physiological illnesses such as heart, lung and respiratory diseases, epilepsy and seizures, developmental or intellectual disability, cognitive impairment, known balance disorders such as vertigo, dependent on alcohol or drugs, other current psychological treatment.

Intervention groups

VRE (n=15), EMDR therapy (n=15), and the waiting list control condition (n=15).

Main outcome variables

Symptoms of Acrophobia, Anxiety Sensitivity

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210213050343N1**

Registration date: **2021-07-12, 1400/04/21**

Registration timing: **retrospective**

Last update: **2021-07-12, 1400/04/21**

Update count: **0**

Registration date

2021-07-12, 1400/04/21

Registrant information

Name

Parisa Azimisefat

Name of organization / entity

Persian Golf University

Country

Iran (Islamic Republic of)

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parisa0730@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-06-20, 1400/03/30

Expected recruitment end date

2021-06-27, 1400/04/06

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the Effectiveness of Virtual Reality Exposure Therapy with Eye Movement Desensitization and Reprocessing Therapy on Symptoms of Acrophobia and Anxiety Sensitivity in Adolescent Girls

Public title

Comparison of the Effectiveness of Virtual Reality Exposure Therapy with Eye Movement Desensitization and Reprocessing Therapy on Symptoms of Acrophobia and Anxiety Sensitivity

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

A score greater than or equal to 50 in the Acrophobia Questionnaire fulfillment of all specific phobia diagnostic criteria (eg, acrophobia) based on SCID-5 submission of written consent for participation in the study by participants and their parents Age 14 to 18 years

Exclusion criteria:

patients with hearing or visual impairment such as stereoscopy blindness or nystagmus presence of any other mental disorders as assessed using the structured clinical interview presence of specific physiological illnesses such as heart, lung and respiratory diseases, epilepsy and seizures developmental or intellectual disability, cognitive impairment, known balance disorders such as vertigo, dependent on alcohol or drugs other current psychological treatment

Age

From **14 years** old to **18 years** old

Gender

Female

Phase

N/A

Groups that have been masked

- Outcome assessor
- Data analyser

Sample size

Target sample size: **45**

Randomization (investigator's opinion)

Randomized

Randomization description

All patients who give consent for participation and who fulfilling the inclusion criteria are randomized using a random number table. In the random number table, a special code was assigned to each patient, respectively. To randomly assign each patient to the groups, the researcher randomly selected individuals from a table point in a row or direction: VRE (n=15), EMDR therapy (n=15), and the waiting list control condition (n=15).

Blinding (investigator's opinion)

Single blinded

Blinding description

This study is a single-blind study in that the researcher and participants are aware of the allocating intervention, but the data analyst and the person conducting the assessments are blind to the specific participant's group.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research Ethics Committees of Bushehr Province
University of Medical Sciences

Street address

Bushehr, Moallem St., in front of Friday prayer place,
Bushehr University of Medical Sciences and Health
Services

City

Bushehr

Province

Boushehr

Postal code

7514633341

Approval date

2021-06-19, 1400/03/29

Ethics committee reference number

IR.BPUMS.REC.1400.036

Health conditions studied

1

Description of health condition studied

Fear of Heights or Acrophobia

ICD-10 code

F40.241

ICD-10 code description

Acrophobia

Primary outcomes

1

Description

Acrophobia: Severe anxiety when standing in high places or watching other people in such situations causes severe fear in people with a phobia. As in other fears, one is fully aware of the irrationality and irrationality of one's fears but nevertheless cannot overcome them. These people try to avoid facing such situations, so that avoidance may have a negative impact on their personal or social life. Anxiety Sensitivity: It is a structure of individual differences in which the individual is afraid of the physical symptoms associated with anxiety arousal (increased heart rate, shortness of breath, dizziness) and basically arises from the belief that these symptoms have potentially harmful consequences. Social, cognitive,

and physical leads.

Timepoint

One week before the intervention and one week after the last intervention session

Method of measurement

Acrophobia Questionnaire and Anxiety Sensitivity Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: VRET is conducted by using a Desktop Computer with specifications; Graphics Card: ASUS NVIDIA GEFORCE GTX 1060 6GB GDDR5, CPU: Core i7-4790 (8M Cache, up to 4.00 GHz), RAM: 8 GB DDR4, and an Oculus Rift Dk2 Virtual Reality Headset. These tools make it possible to create a virtual environment and to provide the VR stimuli to the patient in a safe environment. Patients in the VRET condition are confronted with one VR scenario in each session. In the final session, all VR scenarios are presented one after another. VRET intervention in each session includes two consecutive phases: a training phase and an experimental phase.

Category

Behavior

2

Description

Intervention group: EMDR therapy in the present study is based on the standard protocol for specific phobias, consisting of eight steps performed over six one-hour sessions.

Category

Behavior

3

Description

Control group: They are assessed one week before the start of treatment and one week after the end of the last treatment session using acrophobia and anxiety sensitivity questionnaires.

Category

Behavior

Recruitment centers

1

Recruitment center

Name of recruitment center

Bushehr Education Department

Full name of responsible person

Alimorad Karami

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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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

Persian Gulf 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

Persian Gulf University

Full name of responsible person

Parisa Azimisefat

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Student
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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

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

Data from participants' responses to acrophobia and anxiety sensitivity questionnaires in pre-test and post-test were analyzed using SPSS software, and the results, without mentioning the names of the participants, were shared as study results.

When the data will become available and for how long

The access period starts 6 months after the results are published.

To whom data/document is available

The data of this study will be available only to researchers working in academic and scientific institutions.

Under which criteria data/document could be used

The data of this study will be provided for use by researchers in review or comparative studies.

From where data/document is obtainable

Parisa Azimisefat Department of Psychology, Persian Gulf University, Bushehr, Iran. parisa0730@gmail.com or parisa.azimi@mehr.pgu.ac.ir +989184025128

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

The applicant provides information about their application via email. Up to two weeks after the request, if accepted, documents or data files will be sent.

Comments