

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

02 Jul 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)

##### Phone

+98 77 3122 2078

##### Email address

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**

Persian Gulf University

##### **Full name of responsible person**

Soran Rajabi

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Persian Gulf Street, Persian Gulf University

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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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## Person responsible for scientific inquiries

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## Person responsible for updating data

### Contact

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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