

# **Treating Cynophobia with Augmented Reality Exposure Therapy**

[NCT ID not yet assigned]

11.04.2022

## **Informed Consent [Translated into English]**

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You are kindly invited to participate in our research, “Treating Cynophobia with Augmented Reality Exposure Therapy” (2022.034.IRB3.006), led by Dr. Ceren Acartürk from the Department of Psychology at Koç University.

### **Purpose of the Study and the Procedure**

Participants who meet the criteria of the study and volunteer to participate will be randomly assigned to the control or intervention groups. Random assignment and control group are very important in terms of scientific method when measuring the effectiveness of our application. Therefore, you will be assigned to one of the 2 groups below, purely by chance. If you are assigned to the control group, it means that you will not receive the intervention today. All participants in the control group have the right to receive the same intervention without preconditions after the follow-up measurement at the end of the 1st month, if they would like to.

#### **i) Control Group**

Control group participants will be introduced to the real dog from a distance of 7 meters under the guidance of a therapist, and they will be asked to approach the dog as much as they feel comfortable. During this reference measurement, the approach distance, subjective stress level and stress measurements from the finger will be recorded. Finally, they will be asked to complete the Specific Phobia Scale. Participants will be advised to lead normal lives and not run away from dogs when they encounter them. It will be reminded that the same participants will be followed up after 1 week and 1 month. The same measurements will be made in these follow-ups.

#### **ii) Intervention Group**

Participants in the intervention group will also initially encounter the real dog at a distance of 7 meters. During this reference measurement, the approach distance, subjective stress level and stress measurements from the finger skin will be recorded. Finally, you will be asked to complete the Specific Phobia Scale. When you're ready after the measurement, the researchers will help you put on the AR headset.

There are two rooms of different sizes in which the study will be carried out. The intervention will start first in the big room. The model followed in phobia treatments follows a hierarchical structure in which the least frightening stimuli is presented first and increases as the participant feels comfortable. This hierarchical structure will start with the least scary virtual dog first, move this virtual dog horizontally, move the dog a little closer to you, you move a little closer to the dog and pretend to touch it, the dog barks and jumps, the second dog is added and the same procedure is followed, the third dog is added and consists of the steps of applying the same procedure. All last action is executed without redirects. After this structure is successfully

followed in the first room, the effectiveness of this treatment will be increased by applying it in the second room.

The transition from each stage to the next will depend entirely on your approval. In other words, the decision to continue or not and the control will be yours at every stage. In the second room there will be a stage where you will be advised to be alone with the virtual dog. The decision of this will be entirely yours, but studies show that the participants are extremely comfortable at this point.

Researchers will not ask you to do anything that you do not want to do. At each stage of this process, you will be asked how comfortable you feel out of 10. In order to take the next step, you will be expected to feel comfortable at least 5 out of 10.

The intervention will be completed when the stress level given to you by the virtual phobic stimulus drops to 1 out of 10, that is, when you feel completely relaxed or if your stress level has not changed at all during the last 10 minutes. After the intervention, after resting, you will meet a real dog from a distance of 5 meters under the guidance of the therapist. You will be asked to approach the real dog as much as you feel comfortable. It is very common for participants with a phobia to be able to touch a real dog after this therapy, which is expected to last an average of 45 minutes.

After the last measurement, we will give you closing information. After 1 week and 1 month, we will contact you again and invite you to the laboratory. In order to verify whether your gains are preserved or not, we will measure with a real dog, again accompanied by a therapist.

### **Possible Benefits to the Community and/or Volunteers**

Previous studies using Virtual Reality and Augmented Reality Exposure method in the treatment of specific phobias such as dog phobia have been effective in reducing phobia symptoms. The use of these technological devices in the treatment of phobia and anxiety disorders is expected to increase rapidly in the future. In our study, we expect the participants' phobia severity to reduce significantly after a single exposure session. In addition, we expect that the gains of the participants in the study will be preserved in the 1-week and 1-month follow-ups.

### **Possible Risks and Discomfort**

Augmented Reality glasses used in the study may cause minimal neck pain and eye strain. Also, since glasses can put pressure on your nose, it may cause discomfort if you have recently had rhinoplasty surgery. Participants will encounter a real dog before and after the intervention. The real dog will be held by a research assistant experienced in dog care. Participants will have full control of whether to approach and will be accompanied by researchers. Thus, the risks will be kept to a minimum. During the intervention, Augmented Reality glasses will be worn first and digital dogs will be worked with. Phobic stimuli will be shown to our participants in a safe and controlled environment. The digital dog is completely harmless. However, participants will be asked if they are comfortable with taking each new step.

## Confidentiality

Under any circumstances, the information you provide during the survey will not be matched with your credentials. It will only be used by the research team for academic purposes. The information you give will be kept in an encrypted database in which only the research team may have access. The information you provided will be recycled once the study is completed in an untraceable manner.

### Participation and Terminating the Study

Participation in this study is entirely upon your free will, without any coercion or obligation, your voluntary participation is essential. After deciding to participate, you may terminate the study without providing any specific reason at any time.

For your questions and comments, you may contact the responsible researchers:

Ekin Çakır [ekincakir20@ku.edu.tr](mailto:ekincakir20@ku.edu.tr); Can Anarat [canarat20@ku.edu.tr](mailto:canarat20@ku.edu.tr); Assoc. Prof. Ceren Acartürk; [cacarturk@ku.edu.tr](mailto:cacarturk@ku.edu.tr)

I understood the information provided above and my questions are answered to my satisfaction. Without prejudice to my rights to terminate the study at any point, I agree to the conditions specified below and to participate in the study.

- Under any circumstances, the information I provided during the study will not be matched with my identity and will not be shared with anybody outside the research team.
- I agree that the psychologists working with the research team will contact me 3 times via my phone number if I participate in the intervention program.
- I know that my personal information will be recycled in an untraceable manner if my participation in the intervention program is not found eligible.

I agree to participate in the study.

I do not agree to participate in the study.