

PI: Dr Aitor Rovira

Email: aitor.rovira@psych.ox.ac.uk

Primary researcher: Shu Wei, DPhil Student

Telephone number: 01865 18151

Email: shu.wei@psych.ox.ac.uk



# Experiences of the introductory section of a virtual reality (VR) therapy for fear of heights

## PARTICIPANT INFORMATION SHEET

Central University Research Ethics Committee Approval Reference: [R77367/RE001]

*Please take time to read this information. We will be pleased to answer any questions. Contact details are given above.*

### Key Facts:

- The study will last no longer than 45 minutes.
- The study will involve putting on a virtual reality (VR) headset displaying an immersive computer environment. You will be guided as to what you should do when you view the scenes.
- You will see the first introductory stages of a VR therapy for fear of heights (but will not start any treatment) and try out a virtual height experience in VR. For the VR therapy, you will be randomly assigned to interact one of the different coaches.
- After experiencing the introductory part of VR, we will ask you to complete questionnaires about your impressions.
- The study is conducted following an approved *COVID-19 risk assessment for face-to-face human studies in University buildings*. The COVID-safety measures and enhanced cleaning procedures for the VR equipment are in place for the safety of participant and researcher.
- Your participation in this study is entirely voluntary and you may stop and withdraw at any point without having to provide a reason.

### 1. Background and Aims of the Study

Virtual reality (VR) technology has been increasingly deployed to build mental health solutions. Researchers from the department of Psychiatry is working on developing automated VR therapies with a virtual therapist or virtual coach. Therefore, we want to understand how best to apply a virtual coach in VR therapy to enhance people's engagement level by looking at the participant experience with a virtual coach. The aim of the current study is to evaluate how the non-verbal behaviours of the virtual coach contribute to the level of engagement in a fear of heights VR consultation. You will meet one of the randomly assigned virtual coaches in VR, who will explain the fear of heights treatment. Afterwards, you will be asked about your experiences via questionnaires. The information obtained may help us improve the development of future VR therapies.

### 2. Why have I been invited to take part?

We are looking for adults who have a fear of heights. Because of the use of VR, we cannot test people who (1) have photosensitive epilepsy or a significant visual, hearing or mobility impairment or (2) are taking any medication that can cause motion sicknesses (e.g. azithromycin). Also, we will not be testing people who have COVID symptoms or test positive or have been recommended to self-isolate.

### 3. Do I have to take part?

No. You are not obliged in any way to take part. Participation is entirely voluntary, and you may freely decide whether to take part. You may ask any questions before you decide, and you can withdraw from the study any time during the session.

If you do decide to take part you are free to withdraw yourself and your data from the study within a week after your participation, without having to give a reason.

#### **4. What will happen to me if I take part in the research?**

There are two stages for the study. The first stage is an online screening to complete eligibility questions, which will take about 5 minutes. If you meet the criteria for study participation, we would then email you to arrange the second stage – the in-person VR study. You would be invited to come to the Department of Psychiatry in Oxford to carry out an in-person VR study (less than 45 min).

You would be asked to fill a COVID-19 symptom screening form online within 48 hours of your scheduled session for COVID safely assessment. When you come to the session, the researcher will meet you at the Department reception and guide you to the VR lab within the building. You would first be instructed to fit the VR headset and a wristband and try out an introductory VR scenario, which would allow you to become familiar with VR. The wristband is used to measure the acceleration of your movement, skin temperature and levels of emotional arousal (e.g., heart rate and skin conductance level). You would then experience the introductory section of VR therapy for fear of heights and try out a virtual height experience, with some brief questionnaires both before and after the VR session. The entire session should take less than 45 minutes to complete. At the end of the session, we will provide you with reimbursement for your time.

Please note – people with normal or corrected vision can take part. However, if you wear corrective lenses with large frames, they may not fit in the virtual reality headset. Therefore, if possible, please wear contact lenses during the study session.

#### **5. What are the possible disadvantages and risks in taking part?**

It is very unlikely that you will suffer any harm from taking part. Very occasionally, individuals experience slight nausea (like car sickness) during or after being in VR. If you experience this slight nausea, the researcher conducting the session will take you out of virtual reality immediately (or you can simply take off the headset yourself), which will stop it from getting worse.

#### **6. Are there any benefits in taking part?**

No, although you may find it an interesting experience to go into virtual reality and the results may help us improve virtual reality mental health therapies.

#### **7. What information will be collected and why is the collection of this information relevant for achieving the research objectives?**

During the screening stage, your answers to the fear of heights questionnaire along with your name, email address, phone number, gender and age will be collected to check your eligibility and contact you. Your name, phone number and email will be destroyed if you are not eligible and answer that you do not wish to be contacted about any similar studies. If you are eligible, you will be contacted to arrange the in-person session, and your contact information will be deleted three months after your in-person visit. If you decide to not participate in the study, your contact information will be deleted immediately.

For the in-person session, your answers to a set of questionnaires will be collected after the VR session to assess your impression of the introductory section of the fear of heights VR therapy. Additionally, your behavioural (head

position and rotation) and physiological data (heart rate, skin conductance level, acceleration and skin temperature) will also be collected during the VR session for supplementary insights of your VR experience. All the questionnaires, behavioural and physiological data will be processed and stored anonymously. These anonymous data will be kept for 3 years after publication.

All documents containing your personal information will be destroyed securely three months after your in-person visit, apart from a form giving your consent to take part. In accordance with University of Oxford guidelines, we will keep your written consent to participate in the research for 3 years after publication of results in an academic journal. We anticipate writing up and publishing within one year of study completion, therefore will retain your written consent for approximately 5 years.

If you express your interest to get informed about the research result at the end of your in-person visit, we will keep your email address until the publication to share you the published information.

### **8. Will the research be published? Could I be identified from any publications or other research outputs?**

At the end of the project, the findings of the study will be written-up for publication in a peer-review journal. All data published will be aggregated and will not contain information about individual participants. Participants will not be identifiable from the results reported. If you wish, we will notify you when the findings are published.

### **9. Who has reviewed this study?**

This study has received ethics approval from a subcommittee of the University of Oxford Central University Research Ethics Committee. (Ethics reference: **R77367/RE001**).

### **10. What is the COVID-19 safety measures taken for this study?**

This study follows an approved *COVID-19 risk assessment for face-to-face human studies in University buildings*. When carrying out the in-person session, the researcher will wash their hands frequently, practise social distancing and wear PPE. Regarding the use of virtual reality headset and any contact devices, we have enhanced cleaning procedures for the VR research equipment. This includes using special wipes on parts of the equipment that have direct contact with the face or skin.

### **11. Who do I contact if I have a concern about the research or I wish to complain?**

If you have a concern about any aspect of this study, please contact Shu Wei ([shu.wei@psych.ox.ac.uk](mailto:shu.wei@psych.ox.ac.uk)) or Dr Aitor Rovira ([aitor.rovira@psych.ox.ac.uk](mailto:aitor.rovira@psych.ox.ac.uk)), and we will do our best to answer your query. We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Medical Sciences Interdivisional Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible:

Email: [ethics@medsci.ox.ac.uk](mailto:ethics@medsci.ox.ac.uk); Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, Headington, Oxford, OX3 7GB.

### **12. Further Information and Contact Details**

If you would like to discuss the research with someone beforehand or if you have questions afterwards, please contact:

**Shu Wei**, Department of Psychiatry, University of Oxford  
Warneford Hospital, OX3 7JX

University tel: +44 (0)1865 18151

University email: [shu.wei@psych.ox.ac.uk](mailto:shu.wei@psych.ox.ac.uk)

**Dr Aitor Rovira**, Department of Psychiatry, University of Oxford

Warneford Hospital, OX3 7JX

University tel: +44 (0)1865618279

University email: [aitor.rovira@psych.ox.ac.uk](mailto:aitor.rovira@psych.ox.ac.uk)

**Professor Daniel Freeman**, Department of Psychiatry, University of Oxford

Warneford Hospital, OX3 7JX

University tel: +44 (0)1865 613109

University email: [daniel.freeman@psych.ox.ac.uk](mailto:daniel.freeman@psych.ox.ac.uk)