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oVRcome- Physiology-Personalised Virtual Reality Exposure Therapy for Anxiety Disorders
Information Sheet for participants

Kia ora

You are invited to participate in a research study on the use of virtual reality therapy for treating anxiety-related disorders. This study is being conducted by Don Hine and Neil Thompson from the University of Canterbury | Te Whare Wānanga o Waitaha (UC). Other research team members include Adam Hutchinson from oVRcome Ltd. This study is for people experiencing symptoms of obsessive-compulsive disorder (OCD) or post-traumatic stress disorder (PTSD).

What is the purpose of this research?
This research aims to evaluate if using real-time body signals and smart technology to virtual reality tailor exposure therapy can make it more efficient, while still working just as well or even better. We are interested in finding out whether virtual reality exposure therapy can reduce treatment duration and clinician time compared with routine clinical care. The information from this study will help deliver more efficient and scalable mental health treatment.

Why have you received this invitation?
You are invited to participate in this research because you have responded to a request for participants or other people have shared information about this study with you because they thought you may be interested in it.

Your participation is voluntary (your choice). If you decide not to participate, there are no consequences. Your decision will not affect your relationship with the University of Canterbury or any member of the research team.

Who can take part in this study?
To take part you need to be 18–64 years old, have symptoms of OCD or PTSD that impair your daily functioning, score above clinical thresholds on a validated screening measure, have access to a smartphone and internet, and understand English.

People with significant depression or active suicidal thoughts cannot take part. People currently receiving psychological treatment for their condition may also be unable to take part unless their treatment has been stable for at least 3 months.

What is involved in participating?
If you choose to take part, you will first complete a brief online screening process (approximately 10–15 minutes) to confirm eligibility. If eligible, you will be randomly assigned to one of two groups:

Group 1 (Routine Care): You will receive standard treatment from a clinician. This may include cognitive behavioural therapy (CBT), exposure therapy, exposure and response prevention (ERP), psychoeducation, and/or clinician-guided treatment planning. You will not use the VR app or headset.

Group 2 (Personalised VR): You will attend two in-clinic sessions with a clinician at the University of Canterbury Speech and Hearing Clinic — one at the start of the programme (Week 1) and one at the midpoint (Week 3), each approximately 50 minutes. During these sessions, you will wear a specialised headset that includes sensors to measure physiological responses such as heart rate and eye movements. This data is used to personalise which VR environments are selected for you. Between and after these clinic sessions, you will complete the programme at home using a standard smartphone VR headset and the oVRcome app (approximately 5–10 minutes daily). You will also receive weekly 15-minute check-ins with a digital care navigator during the home phase. The VR content in this group includes environments created using artificial intelligence (AI) tools. All AI-generated content has been reviewed and approved by qualified clinicians before inclusion in the programme.

You will have an equal chance of being placed in either group. All participants will complete questionnaires about symptoms and wellbeing at baseline, weekly during the 6-week treatment period, at the end of treatment, and at 3-month follow-up. These questionnaires take approximately 10–15 minutes to complete.

Are there any potential benefits from taking part in this research?
The possible benefits include a reduction in symptoms of your anxiety-related condition. You may also learn anxiety and stress management techniques that can be helpful for other forms of distress. Your participation will also contribute to research on how physiological data can improve the personalisation and efficiency of exposure therapy.

Are there any potential risks involved in this research?
The main risk of physical harm is if a person wearing a VR headset is not aware of the environment around them and collides with an object or falls. You will be instructed to prepare a safe space of sufficient size before each VR session.

Some participants may experience mild motion sickness in the VR environment. This can be quickly resolved by removing the headset.

Exposure therapy involves gradually facing situations that cause distress. This may cause temporary increases in anxiety during sessions, which is a normal and expected part of the therapeutic process. Your progress and wellbeing will be monitored throughout the study, and you can stop at any time.

If you are in Group 2, the sensor-integrated headset will measure physiological data during your in-clinic VR sessions. The sensors are non-invasive and built into the headset cushion. A pilot study confirmed the headset is comfortable and safe to wear. The specialised headset is used during in-clinic sessions only; you will use a standard smartphone VR headset at home.

Some of the VR content in this study has been created using artificial intelligence (AI) tools. All AI-generated content has been reviewed and approved by qualified clinicians to ensure it is safe and appropriate for therapeutic use.

If you are participating in the PTSD component of this study, you may be asked questions about your trauma history at baseline. You can pause or skip these questions at any time and request support if you find them distressing.

Compensation
If you were injured in this study, you would be eligible to apply for compensation from ACC just as you would be if you were injured in an accident at work or at home. This does not mean that your claim will automatically be accepted. You will have to lodge a claim with ACC, which may take some time to assess.

Will any costs be reimbursed?
Taking part will not incur any cost to you. If you are in Group 2, you will receive a standard smartphone VR headset for home use. The specialised sensor headset used during in-clinic sessions will be provided at the clinic. Data costs for using the app depend on your provider's data plan and can be avoided by using free WiFi.

What if something goes wrong?
Your wellbeing will be monitored throughout the study with weekly questionnaires. If these indicate your symptoms are worsening significantly, a member of the research team will contact you within 48 hours to discuss your situation and ensure you have access to appropriate support.
If you experience an adverse event you believe is related to the study, you can complete an adverse event form on the study website or contact the lead researcher directly.

In a crisis, you can contact:

- 1737 (Need to Talk?) — free call or text, 24/7 mental health support
- Whakarongorau Aotearoa / NZ Telehealth — 0800 611 116

What if you change your mind during or after the study?
You are free to withdraw at any time. To do this, please let the researcher, or myself know either during the study or after you have finished. If you withdraw, the study team will stop collecting information from you. However, information collected up until your withdrawal will continue to be used and included in the study, to protect the quality of the research.

What will happen to the information you provide?
All data will be confidential. To ensure your identity is not known to anyone outside the research team, we will keep your signed consent form in files separate from your observation results. Your identity will not be shared with anyone outside the research team.

If you are in Group 2, the sensor-integrated headset will collect physiological data including heart rate, eye movement, and related signals during your in-clinic VR sessions. This data will be de-identified and linked to a study code. It will be used to personalise your VR exposure programme and for research analysis. The AI system does not have access to your personal information. AI tools are used solely to create VR environments; they do not make treatment decisions.

We will store all study data in password-protected files on the University of Canterbury computer network.

All data will be destroyed ten years after completion of the study. I will be responsible for making sure that only members of the research team use your data for the purposes mentioned in this information sheet.

Will the results of the study be published?
Results may be published in peer-reviewed, academic journals. You will not be identifiable in any publication. A summary of results will be sent to all participants who request a copy of these.

Who can you contact if you have any questions or concerns?

If you have any questions about the research, please contact: Neil Thompson: neil.thompson@canterbury.ac.nz

This study has been reviewed and approved by the University of Canterbury Human Research Ethics Committee (HREC). If you have concerns or complaints about this research, please contact the Chair of the HREC at human-ethics@canterbury.ac.nz).

What happens next?
If you would like to participate, please complete the consent form statements on the study-specific website. You are encouraged to keep a copy of both this Information Sheet and the Consent Form. You can request to be contacted by phone to discuss the consent and screening process if you need further information or support.