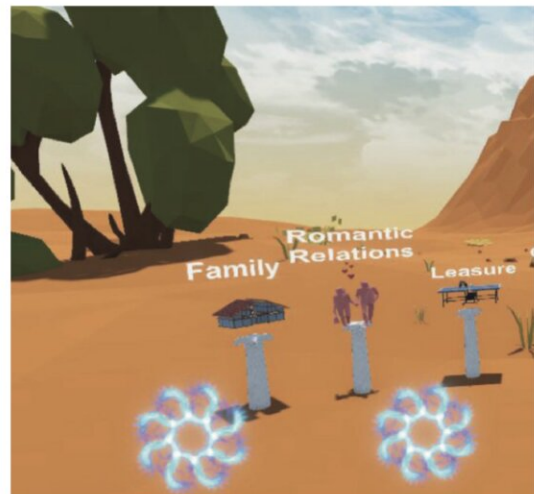


Virtual reality health appointments can help patients address eating disorders

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Patient avatar customisation



Building life value map as part of the therapy



Collaborative playful activity to improve patient-therapist relationship

Images taken from the virtual reality environment of a therapy appointment.
Credit: Dr Jim Ang - University of Kent

Research from the University of Kent, the Research Centre on Interactive Media, Smart systems and Emerging technologies—RISE Ltd and the University of Cyprus has revealed that Virtual Reality (VR) technology can have significant impact on the validity of remote health appointments for those with eating disorders, through a process called Virtual Reality Exposure Therapy (VRET).

This paper demonstrates the potential value of Multi-User Virtual Reality (MUVR) remote psychotherapy for those with [body shape](#) and weight concerns.

In the study, published in *Human-Computer Interaction Journal*, participants and therapists were fitted with VR Head-Mounted Displays and introduced to each other within the VR system. Participant would then customize their virtual [avatar](#) according to their look ([body shape](#) and size, skin tone and hair color and shape). Participant and therapist were then "teleported" to two Virtual Environment interventions for several discussions, building up to the Mirror Exposure.

Mirror Exposure involves confrontation in a mirror with ones' shape and body. In the MUVR, the participant faces the virtual avatar they customized to match their own physical body. Here, they were again able to adjust body shapes using virtual sliders, change clothing, skin tone, as well as hair style and color. Clothing was then gradually reduced until the participant's avatar was in their virtual underwear.

The participant was then asked to examine each part of their body and perform adjustments while describing their feelings, thoughts and concerns with the therapist, leading to virtual exposure therapy for the patient to their body shape and size through the customized avatar.

The study found that the avatar of the therapist was vital to the participant. The cartoonish avatar facilitated greater openness from

participants, whilst therapist avatars in human-form represented the idea of negative judgment. In post-session interviews, participants noted the lack of fear of judgment as enabling them to commit to the session's aims.

Dr. Jim Ang, Senior Lecturer in Multimedia/Digital Systems and Supervisor of the study said: 'The potential of Virtual Reality being used in addressing [health issues](#) with patients, remotely and without the issue of potential judgment, is for VR to be utilized throughout the health sector. Without the issue of judgment, which people can fear in advance of even seeking medical advice, VR can give people the confidence to engage with and embrace medical advice. In terms of the technical capabilities, the potential for VR to aid in remote non-contact medical appointments between patients and practitioners is huge, due particular consideration in times of pandemic.'

Dr. Maria Matsangidou, Research Associate at RISE Ltd and Experimental Researcher of the study said: 'Multi-User Virtual Reality is an innovative medium for psychotherapeutic interventions that allows for the physical separation of [therapist](#) and patient, providing thus more 'comfortable' openness by the patients. Exposure to patient worries about body shape and size may exhibit anxious reactions, but through the remote exposure therapy this can elicit new learning that helps the patient to shape new experiences.'

More information: Maria Matsangidou et al, "Now I can see me" designing a multi-user virtual reality remote psychotherapy for body weight and shape concerns, *Human-Computer Interaction* (2020). [DOI: 10.1080/07370024.2020.1788945](https://doi.org/10.1080/07370024.2020.1788945)

Provided by University of Kent

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