

Differential effect of neutral and fear-stimulus virtual reality exposure on physiological indicators of anxiety in acrophobia

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ABSTRACT

This paper presents a study which explores the physiological and behavioural indicators of anxiety during exposure to a virtual reality environment. Using 10 participants (5 with acrophobia and 5 control) the study aimed to determine whether an increase in heart rate (HR) from baseline to VR exposure is a sufficient measure for effectiveness of a virtual reality exposure therapy (VRET) stimulus, or whether there is a mediating effect of neutral VR exposure which should be taken into account. The participants all explored an immersive cityscape at ground level and at height, and both subjective and objective measures of physiological arousal were recorded. It was found that the VRET was successful in inducing an anxiety response in the participants with acrophobia, and moreover demonstrated that an increase in HR from baseline to VRET on its own should not be considered a reliable indicator of VRET efficacy, but that there should be an adjustment for the effect of neutral VR exposure on physiological arousal.

Full papers will be published in the Conference Proceedings and will be freely available to delegates at the conference and online on September 20, 2016.