



A qualitative study investigating the use of a new transdiagnostic virtual reality software for the prevention of eating disorders

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Abstract

Introduction: Eating disorders (EDs) are clinically severe psychopathologies which warrant effective preventive interventions using innovative approaches, such as virtual reality (VR). H.O.M.E. (How to Observe and Modify Emotions) is a novel VR transdiagnostic software and intervention applicable to ED prevention by reducing dysfunctional eating behaviors and improving ED-related transdiagnostic factors of emotion regulation, psychological flexibility and experiential avoidance. Taking into account patient's subjective experience is essential when developing preventive interventions. Thus, this study aimed to evaluate the H.O.M.E. software quality and the opinions of general population (GP) participants with ED risk undergoing the H.O.M.E. preventive intervention.

Methods: GP participants with ED risk were recruited online via self-report psychometric screening tools: the SCOFF Questionnaire and Eating Disorder Examination Questionnaire (EDEQ). N=30 (100% females, mean age: 26.47 ± 8.34) tested the software quality by completing the Igroup Presence Questionnaire, Simulator Sickness Questionnaire, System Usability Scale, and User Experience Questionnaire. N=20 (100% females, mean age: 24.35 ± 6.02) completed a semi-structured interview after completing the H.O.M.E. preventive VR intervention to collect their subjective experience. Descriptive statistical analyses were run on psychometric tools and a qualitative thematic analysis on post-intervention interviews.

Results: Questionnaire scores showed that H.O.M.E. had an acceptable sense of presence, contained motion sickness symptoms, good ease of use, and satisfactory user experience. Participants undergoing the H.O.M.E. intervention reported positive opinions and reported that H.O.M.E. improved their dysfunctional eating behaviors, psychological coping strategies and ED-related transdiagnostic factors. H.O.M.E. also encouraged participants to seek additional psychological support.

Discussion: H.O.M.E. can represent an acceptable and useful VR tool that could be used in clinical psychology to prevent EDs, especially by acting on the transdiagnostic factors linked to their onset and maintenance. The similarities between VR and everyday life technologies can act as a bridge between



people at risk for EDs and traditional psychotherapy, encouraging people to get psychological support before the onset of a full diagnosis.