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Types de Présentation Sollicités :

- Présentation Orale
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1. Titre du Résumé :

Virtual Reality Exposure Effectiveness in Eliciting Cocaine Craving

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4. Description précise des objectifs :

Cocaine craving is the most intense of all substances and worryingly predicts relapse in cocaine use. The immersive virtual reality (VR) paradigm is supposed to enhance the efficacy of exposure therapies, which demonstrated to have therapeutic potential in reducing craving and treating substance use disorders (SUD). With the doctoral aim of developing and validating the first VR exposure therapeutic protocol for cocaine craving, in this study we assessed the VR exposure effectiveness in eliciting cocaine craving.

5. Matériel et méthodes :

The ethical approval for this study was obtained from *Comité de Protection des Personnes* (2021-A00242-39). Eleven cocaine users participants (mean age = 32.09 yrs; range = 26-48 yrs; 9 males) were recruited, including 5 smokers, 4 snorters and 2 cocaine injectors, all free of high suicide risk or psychotic and (hypo-)maniac episodes (DSM-IV). Participants were invited to expose themselves to 2

10 min VR conditions (Neutral VR and Cocaine VR), with a 10 min interval. In Neutral VR, participants were exposed to neutral picture frames. In Cocaine VR, participants were exposed to cocaine paraphernalia, making and using with peers. Subjective cocaine craving levels (CCQ– Brief total score) were self-reported after completing each of the conditions, and their means, standard deviations and Cohen's effect size were computed.

6. Résultats et conclusions :

After exposure to the Cocaine VR condition, a large cocaine craving increase was observed (M = 30.72; SD = 17.24; Cohen's d = +1.14) compared to after exposure to the Neutral VR condition (M = 16.36; SD = 7.79). This study is the first to investigate whether VR exposure is effective in eliciting cocaine craving in a sample including smokers, snorters and cocaine injectors. This large effect of cocaine craving increase is equal or superior to the ones observed in pictures and videos exposure designs, as reported in a meta-analysis. Our results support the assumption that VR could be of clinical interest in treating SUD, and thus reinforce our doctoral ambitions to develop and validate the first VR exposure therapeutic protocol for cocaine craving.

7. Liens d'intérêt :

No conflict of interest to disclaim from authors. This project is financed by the French National Cancer Institute and the Research Institute of Public Health (SPADOC 21-009).