Virtual Reality-Based Mindfulness Practice Improves Emotion Regulation in Patients in Substance Use Treatment

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INTRODUCTION

- 10% of population is affected by SUD every year
- Evidence-based treatments, moderately effective, 50% relapse rate
- Mindfulness practice show mixed results, partly nonadherence
- Virtual Reality increases treatment retention for exposure therapy

Primary study: valuating the feasibility and acceptability of VR in an outpatient treatment center, along with effects on craving, emotion regulation, mindful attention, and awareness

This study: secondary analysis of the back-end application data looking at the effects of VR mindfulness practice on emotion regulation

METHODS

38 patients in Inpatient Residential Treatment
Inclusion: have a primary SUD; completed detoxification
Exclusion: history of seizures, epilepsy, vertigo; active nausea

Intervention
Offered a Virtual Reality-based headset featuring a mindfulness application, namely TRIPP, during their independent mindfulness time scheduled in their morning routine.

Measures
Participants asked the following before and after the experience:
(1) “How are you feeling right now?” on a scale of 1 “Poor” to 10 “Excellent”
(2) “What best describes your mood?” using one or multiple mood descriptor(s)

Analysis
(1) Feeling rating scale (quantitative): mean change before and after the mindfulness practice on a per use and per day basis
(2) Mood descriptors (qualitative): word cloud weighted by frequency

RESULTS

Feeling
Mean change before and after the mindfulness experience

Per Use: +0.95 (SE=0.08)
Per Day: +0.93 (SE=0.10, p<0.001)

Mood

CONCLUSIONS

VR-based mindfulness intervention has the potential to aid patients with emotion regulation on the tough road to fight addiction!

Limitations
Small sample size
Study design
Single-arm study
Momentary changes
Semi-structured clinical environment

Preliminary Promises
Improves medical adherence
Can revolutionize patient education (Miller, 2014; van der, 2021).
Encouraging results in fibromyalgia, traumatic brain injury, generalized anxiety, sleep quality, and more

Need For
Larger-scale studies
Longitudinal studies
Different environments, including home
Reducing costs and increasing access

REFERENCES


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