

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 cravings, 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



Figure 1. Word cloud weighted by the frequency of the words selected before the beginning of the mindfulness practice experience in TRIPP.



Figure 2. Word cloud weighted by the frequency of the words selected before the beginning of the mindfulness practice experience in TRIPP.

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

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