

# Predictors of Treatment Admissions for Hallucinogen Use in the United States

## Abstract

Saral Desai, MD<sup>1</sup>; Hayden Sando, MD(c)<sup>2</sup> & Edward Lin, MD(c)<sup>2</sup>

1. Department of Psychiatry, Tower Health - Phoenixville Hospital, Phoenixville, PA 19460. [Saral.desai@towerhealth.org](mailto:Saral.desai@towerhealth.org)
2. Drexel University College of Medicine, Philadelphia, PA

## Objectives

The primary objective is to identify predictors of treatment admissions for hallucinogen use. The secondary objective is to identify the most commonly prevalent co-occurring substance use among admissions for hallucinogen use.

## Methods

We performed a retrospective analysis of Treatment Episode Data Set Admissions (TEDS-A) 2020 data that nationally represents admissions to all private and publicly funded substance abuse treatment facilities. Hallucinogens included LSD, DMT, mescaline, peyote, psilocybin, STP, and other hallucinogens. We performed univariate analysis using Pearson's chi-square test for categorical variables and an unpaired t-test for continuous variables. Multivariable logistic regression analysis was performed to identify the predictors associated with treatment admission for hallucinogen use.

## Results

Out of a total of 1,416,357 treatment admissions, 0.6% were associated with hallucinogen use. Among males, a higher percentage reported hallucinogen use at admission (73.6% vs. 64.8%;  $p < 0.0001$ ). Among different age groups, a higher percentage of participants aged 12-29 reported hallucinogen use at the time of admission (55.3% vs. 28.0%). Among co-occurring substance use, a higher percentage of cannabis associated admission also reported hallucinogen use (55.8% vs. 27.2%;  $p < 0.001$ ). In regression, co-occurring mental health and substance use disorders (aOR: 1.973; 95%CI: 1.866-2.087;  $p < 0.001$ ), male gender (aOR: 1.591; 95%CI: 1.497-1.690;  $p < 0.001$ ), African American race (aOR: 2.331; 95%CI: 1.105-4.915;  $p = 0.026$ ), Bachelor's degree (aOR: 1.518; 95%CI: 1.273-1.809;  $p < 0.001$ ), unemployment (aOR: 1.130; 95%CI: 1.036-1.232;  $p = 0.006$ ), homelessness (aOR: 1.295; 95%CI: 1.211-1.384;  $p < 0.001$ ), were associated with higher odds of admission for hallucinogen use.

## Conclusions

Hallucinogen-related admissions were highest among 12-29-year-olds. Predictors of these admissions included co-occurring mental health and substance use disorders, male gender, African American race, unemployment, homelessness, and having a bachelor's degree. Cannabis was the most common co-occurring substance. With rising interest in hallucinogens and their potential benefits, further research is needed to understand factors leading to hallucinogen use disorder and treatment episodes.

**Keywords:** Hallucinogens, admission, treatment, substance use, predictors

**Human/animal subject protection:** This study utilized publicly available survey data with minimal/no risk to human subjects.