May 2nd, 11:00 AM - 1:00 PM

Exploration of Ayahuasca's Mechanisms in the Treatment of Stimulant Use Disorder

Aaron M. Eisen
Portland State University

Nicholas A. Smith
Portland State University

W. S. Griesar
Portland State University

Follow this and additional works at: https://pdxscholar.library.pdx.edu/studentsymposium

Part of the Psychology Commons

Let us know how access to this document benefits you.

https://pdxscholar.library.pdx.edu/studentsymposium/2018/Poster/23

This Poster is brought to you for free and open access. It has been accepted for inclusion in Student Research Symposium by an authorized administrator of PDXScholar. Please contact us if we can make this document more accessible: pdxscholar@pdx.edu.
Exploration of Ayahuasca’s Mechanisms in the Treatment of Stimulant Use Disorder

Aaron M. Eisen
Nicholas A. Smith
W. S. Griesar
Exploration of Ayahuasca’s Mechanisms in the Treatment of Stimulant Use Disorder
Aaron M. Eisen, A.A., Nicholas A. Smith, M.S., W.S. Grieser, Ph.D.
Department of Psychology, Portland State University
Please contact aaron.eisen@pdx.edu for positions or comments.

Abstract

Stimulant use disorders present a treatment-resistant scenario in many cases, further research must be undertaken to realize effective treatment strategies. Ayahuasca (an entheogenic plant mixture traditionally used by South American shamanistic cultures) may potentially be a treatment to stimulate drug use. Our theories hypothesize for biomedical, psychophysical, psychological, and neurochemical mechanisms underlying ayahuasca’s potential as a therapeutic treatment. To investigate such hypotheses, we conducted a controlled trial to determine the effects of ayahuasca, a traditional therapeutic treatment for stimulant use disorders. We recruited participants who have been addicted to methamphetamine in the past. We tested the mechanism of action of ayahuasca by using PET imaging to measure dopamine measurement in various brain regions. The results of our study support our hypotheses, and our research is an innovative approach that may contribute to the development of ayahuasca as a therapeutic treatment for stimulant use disorders.

Methods

Sample

We selected 50 methamphetamine users (N = 50) who consume between 0.1 - 0.0 grams of methamphetamine per day will be recruited for this study. Participants (the age of 20 to 35) will be recruited through local advertisements on the internet through websites such as social media, forums, and personal networks. Adult participants will be included in the study until the sample size is reached. Those who meet the inclusion criteria and provide written consent will be eligible for the study. Consent to participate in the study will be obtained as follows: all participants will read and sign the consent form.

Inclusion criteria: 8 times developed for this study to identify participants who meet eligibility criteria. “Do you consume more than 0.1 grams of methamphetamine per day?”

Deviative variability: Participants will have two baseline PET scan sessions to determine the average variability of dopamine in the brain (N = 20) if the participant is 20 to 35 years old. Participants will undergo a psychological test prior to the PET scan sessions, which will be used to determine the participant’s level of attention and cognitive ability. Participants will be scanned while their dopamine levels are being measured. They will be informed of the purpose of the study and the importance of their participation.

Demographic variables: Participants will undergo a psychological test prior to the PET scan sessions, which will be used to determine the participant’s level of attention and cognitive ability. Participants will be scanned while their dopamine levels are being measured. Participants will be informed of the purpose of the study and the importance of their participation.

Procedure

The PET scan sessions will be conducted on the same day, with a baseline PET scan session conducted prior to the ayahuasca treatment. After the baseline PET scan session, participants will be administered ayahuasca. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment. The PET scans will be conducted on the same day, with a baseline PET scan session conducted prior to the ayahuasca treatment. After the baseline PET scan session, participants will be administered ayahuasca. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

Psychological health: 20 participants will be recruited from the participant base for each of the two ayahuasca scans. Participants will be scanned while their dopamine levels are being measured. Participants will be informed of the purpose of the study and the importance of their participation.


Concentration of ayahuasca: Laboratory-based studies on the concentration levels of health in both groups.

Procedure

We will use an independent group study using a patient-reported positive study design with one experimental and one control condition and a personalized control condition.

Randomization using sealed envelopes will be used to determine the group participants (N = 50), 25 participants will be assigned to the experimental condition, and 25 participants will be assigned to the control condition. Randomization using sealed envelopes will be used to determine the group participants (N = 50), 25 participants will be assigned to the experimental condition, and 25 participants will be assigned to the control condition. Randomization using sealed envelopes will be used to determine the group participants (N = 50), 25 participants will be assigned to the experimental condition, and 25 participants will be assigned to the control condition. Randomization using sealed envelopes will be used to determine the group participants (N = 50), 25 participants will be assigned to the experimental condition, and 25 participants will be assigned to the control condition.

Participants will undergo two ayahuasca treatment sessions, two PET scanning sessions, and report to the clinic to complete a health questionnaire.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

Participants will undergo two ayahuasca treatment sessions, two PET scanning sessions, and report to the clinic to complete a health questionnaire.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.

The study will be conducted in the morning, approximately four weeks prior to the ayahuasca treatment session. The ayahuasca will be administered intravenously, and participants will be scanned again after the ayahuasca treatment.