Journal Club at the Laboratory of Clinical Psychopharmacology of Addictions (LCPA) is a monthly gathering to discuss research papers with a focus on addiction.

**Mission:** to promote a better understanding of the research process and an improve ability to critically appraise research in addiction and related diseases (e.g. infectious, mental health, etc.).

**Discussion topics and learning objectives** include (but not limited by) the concepts of addiction, terminology used in the field, socio-cultural and biological risk factors, contemporary public health issues and policies, prevention, treatment and treatment systems.

#### Values:

- Learning
- Respect
- Collaboration
- Multidisciplinary
- Excellence

Please be open, flexible, realistic, and understanding!



#### **Housekeeping notes**

#### **Video-recording**

The meeting will be entirely video-recording and published on the Pavlov University website and YouTube, so if you wish not be in the recorded video, please make sure that your webcam off during the meeting.

#### Q&A

The seminar is interactive and we strongly encourage you to actively ask questions during the presentation but keep in mind that we have dedicated time at the end of the webinar (10 minutes) to group discussion and Q&A. Please raise your hand if you have any questions or comment. You also may use chat option to post your questions or comments.

#### Mic and Video

Please keep your mic mute during entire meeting unless you want to make a question or comment. We recommend keeping your camera on during the meeting.

#### **Post-meeting survey**

After the meeting we would like to send you the survey. Please make sure that we have your email.



# **CONTACTS**

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# Exploring ayahuasca-assisted therapy for addiction: A qualitative analysis of preliminary findings among an Indigenous community in Canada

ELENA ARGENTO, RIELLE CAPLER, GERALD THOMAS, PHILIPPE LUCAS & KENNETH W. TUPPER.

Presenter: Olga Belova, 3-year medical student.



# **FEATURED ARTICLE**

#### Drug and Alcohol REVIEW



Drug and Alcohol Review (2019) DOI: 10.1111/dar.12985

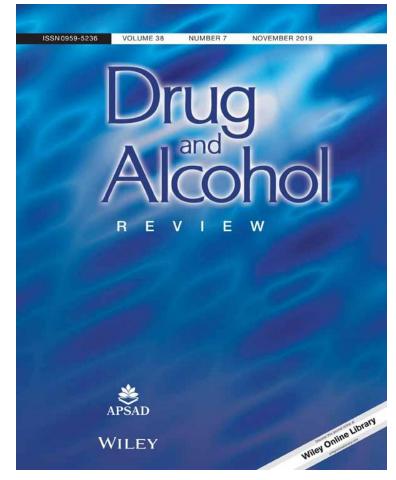
Exploring ayahuasca-assisted therapy for addiction: A qualitative analysis of preliminary findings among an Indigenous community in Canada

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#### Abstract

Introduction and Aims. A previous observational study of ayahuasca-assisted therapy demonstrated statistically significant reductions in self-re-to-rted problematic cocaine use among members of an Indigenous community in Canada. This paper aims to qualitatively explore the impact of avahuasca-assisted therapy on addiction and other substance use-related outcomes and elucidate the lived experiences of participants. Design and Methods. Qualitative interviews were conducted with 11 adult Indigenous participants of the ayahuasca-assisted 'Working with Addiction and Stress' ceremonial retreats (June-September 2011). Semi-structured interviews assessed experiences of participants following the retreats at 6-month follow up. Thematic analysis of interview transcripts was conducted. Results. Narratives revealed that the retreats helped participants identify negative thought patterns and barriers related to their addiction in ways that differed from conventional therapies. All participants reported reductions in substance use and cravings; eight participants reported complete cessation of at least one substance at follow up. Increased connectedness with self, others and nature/spirit was described as a key element associated with reduced substance use and cravings. Discussion and Conclusions. This analysis expands upon prior quantitative results highlighting the therapeutic potential of ayahuasca-assisted therapy and provides important contextual insights into why ayahuasca-assisted therapy may have been beneficial for members of an Indigenous community seeking to address their problematic use of substances. Given limited efficacy of conventional treatments for resolving addiction issues, further research should investigate the role of avahuasca and other psychedelic-assisted therapies in enhancing connectedness and other key factors that may improve well-being and reduce harmful substance use. [Argento E, Capler R, Thomas G, Lucas P, Tupper KW. Exploring ayahuasca-assisted therapy for addiction: A qualitative analysis of preliminary findings among an Indigenous community in Canada. Drug Alcohol Rev 2019]



Impact factor: 2.789

H-index: 66



#### **PROBLEM**

Substance abuse – is a massive public health problem.

Conventional addiction treatments have limited efficacy



# **CURRENT TREATMENT OPTIONS IN US**

- Behavioral
- Substance use disorder treatment setting

cognitive-behavioral therapy, contingency management, motivational enhancement therapy, twelve-step facilitation therapy.

- Pharmacotherapy
- methadone, buprenorphine, and naltrexone for people with opioid use disorder
- nicotine preparations (patches, gum, lozenges, and nasal spray) and the medications varenicline and bupropion for people with tobacco use disorder
- disulfiram, acamprosate, and naltrexone for treating alcohol disorder



# **AYAHUASCA**

Ayahuasca — a psychedelic, a psychotropic brew (*Banisteriopsis caapi+Psychotria viridis*);

plants contain harmala alkaloids (monoamine oxidase inhibitors) and N,N-dimethyltryptamine (DMT)





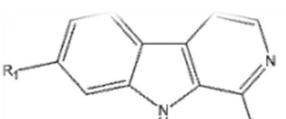
#### BIOCHEMISTRY OF AYAHUASCA

Banisteriopsis caapi contains

B-carboline alkaloids

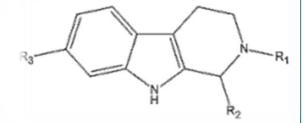


harmine



harmaline

tetrahydroharmine

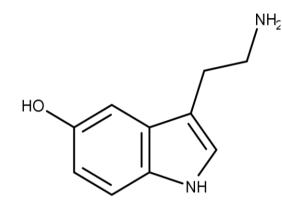


The leaves of *Psychotria viridis* contain N,N-dimethyltryptamine (DMT)



NH NH

DMT



Serotonin



Valdman Institute of Pharmacology, First Pavlov State Medical University of St. Petersburg, Saint-Petersburg, Russia

# **STUDY OBJECTIVE**

To explore the impact of ayahuasca-assisted therapy on addiction and other substance use-related outcomes and to elucidate the lived experiences of participants.



# STUDY DESIGN

qualitative semi-structured interview study

Where: retreats in band's longhouse (traditional ceremonial space) in Coast Salish tradition.



# PARTICIPANTS, N=12

Indigenous members with Retreat Ayahuasca experience with problematic substance use (including alcohol, tobacco, cocaine, pharmaceutical painkillers), which was indicated by ASSIST (*Alcohol, Smoking and* 

Substance Involvement Screening Test ) (?)

#### Inclusion criteria:

- ability to communicate in English,
- be over the age of 18,
- no past experience with ayahuasca,
- no current use of selective serotonin reuptake inhibitors,
- no current or recent experience of psychosis.





That was 6 months before the interview:

4 days:

two ayahuasca ceremonies guided by a Shipibo master ayahuasquero and three (non-Indigenous) Canadian apprentice ayahuasqueros

• Participants adhered to a diet that adhered to traditional Shipibo (Peruvian Amazonian Indigenous) practices, refraining from meat, sugar, alcohol, salt and strong seasonings.



Day 1 of the Retreat:

Participants were greeted by healers and the research team, who explained the process that was about to take place over the next few days.



Day 2, Morning/Afternoon:

Talk therapy sessions, breathing and meditation exercises during the day were led by a Canadian physician

#### Day 2, Evening:

small glasses (50–100 mL) of ayahuasca (which contains large concentrations of DMT were offered to participants and traditional chants, known as icaros, were sung in Shipibo, Quechua or Spanish by ayahuasqueros (9.00 pm-3.00 am) -> participants slept in the longhouse after the ceremony



Day 3:

Participants had opportunities to share their own experiences

There was the second ayahuasca ceremony

one of the twelve participants chose not to drink ayahuasca on the second night



Day 4:

a final debrief on the morning

participants left the site of the retreat before noon with the band's health office agreeing to monitor them for any potential adverse after-effects



Qualitative interview questions(6 months after retreat):

- 1. Did the retreat have any impact on your life?
- 2. On a scale of 1–10, with 1 being extremely negative and 10 being extremely positive, how would you rank the impact of the retreat on your life?
- 3. Please describe how the experience impacted your life, for example your substance use, personal relationships, sense of self and connection with nature and/or spirit.

\*Interviews were transcribed and thematic analysis was performed to describe patterns emerging across the data.



11 adults (mean age = 38) (6 men, 5 women) participated in the qualitive interviews.

One participant of the 12 individual, who participated in the retreats chose not to drink ayahuasca on the second night.

rank the experience on a scale of 1 (extremely negative) to 10 (extremely positive):

-Mean ranking = 7.95

Some of participants experienced nausea and vomiting.



Heightened connection with spirit and nature

«I had no sense of spirituality before really, coming clean and sober even while I was going through, like AA and NA. They tell you to reach your higher power or whatever. I thought that was a bunch of bull. But after the retreats I have really opened up to spirituality big time. I smudge every night before bed. I pray...I say thanks to whatever is out there, you know?»—P11 (30-year-old male)



Altered sence of self and insights into the psyche

«It is actually helping me to do my psychological work... it made me look at myself and see how I react to the world, and how I can shift in the way that I actually truly desire which is...unconditional love...so ayahuasca has helped me, the whole retreat, to eliminate those barriers so I can...keep on healing and go forward and accomplish what I want to».—P3 (22-year-old female)



• Transformations in relationships with others «Since doing the ceremonies…I am more open to caring for other people… I think I have more love and respect for the people in my life…more gratitude».—P11 (30-year-old male)



Diminished substance use and addictions

«It put my substance [use] in my face and I just faced the problems that I was having keeping me in my abuse. I just kept living it over and over again until I finally faced it and I just feel that there was closure. I do not use any more. I do not use anything. I do not smoke or anything».—P8 (34-year-old male)

19-year-old female participant summarised: «I felt free of my addiction that is for sure... I stopped completely. I had no desire to use». – P5



• Comparison with other treatment experiences (methadone, Alcoholics Anonymous (AA), Narcotics Anonymous (NA))

«Other treatments sort of like scraped the surface as they say. This one got me deep into myself which I have never admitted to or confronted I guess you could say in the other treatments…»—P9 (55-yearold male)

«I am on methadone and that did not work...after that [retreat] I had no desire...I do not know what it is about that but it really is very life-changing».—P5 (19-year-old female)



Overall reactions to the retreats

«I think it [ayahuasca] is a good medicine. Because it can shift energy and help people clear up some things so they can continue on their journey...Because we are so unaware about if we are holding things in or not... I highly advise it to be used. It is a nice steppingstone to another level».—P3 (22-year-old female)

But there were also negative aspects such as nausea and vomiting

#### Group sessions:

advantages - trust and understanding of the challenges disadvantages - negative influence by others` experiences



# **DISCUSSION**

ayahuasca-assisted therapy may facilitate recovery from addiction by enhancing one's relationship with self, others and connection to nature/spirit



# **LIMITATIONS**

-small size and its observational nature preliminary results indicate the need for proper clinical studies to assess the efficacy and safety of ayahuasca-assisted treatment for SUD further research should employ mixed-methods



# **CONCLUSIONS**

- Participants in the qualitive study reported profound and meaningful changes in:
- -connection with spirit and nature
- -connection with self
- -connection with others
- -danger of substance use

Both external connection and internal connection are recognized as important facilitators to recovery from addiction.



#### DISCUSSION

- What was the role of the ethnic minority in the development of SUD (substance use disorder) and it's treatment?
- Did ayahuasca work for indigenous peoples because they felt connected with nature and spirit, would it work for other people?
- Is there a future for psychedelic-assisted therapy?
- Is it really more effective therapy, than conventional addiction treatments?
- Let's think about long term effects. Is it tolerance developed after several use? Withdrawal? Or other sign of mental and physical addiction?
- What is more in such therapy: benefit or harm?



# Spectrum of Psychoactive Substance Use

#### Casual/Non-problematic Use

 recreational, casual or other use that has negligible health or social effects

#### Chronic Dependence

 Use that has become habitual and compulsive despite negative health and social effects

#### Beneficial Use

- use that has positive health, spiritual or social impact;
- e.g. medical pharmaceuticals; coffee/tea to increase alertness; moderate consumption of red wine; sacramental use of ayahuasca or peyote

#### Problematic Use

- use that begins to have negative consequences for individual, friends/family, or society
- e.g. impaired driving; binge consumption; harmful routes of administration



#### **SUMMARY**

- People with SUD can benefit significantly from ayahuasca therapy.
- Additional clinical studies with proper controls are recommended to more thoroughly test the efficacy of ayahuasca-assisted treatment for harmful substance use.
- The study found no evidence of harm associated with the administration of ayahuasca in a controlled ceremonial context.



#### SOME POINTS AFTER DISCUSSION

- This is a question of how to distinguish the chemical effect of ayahuasca and action like CBT (cognitive-behavioral therapy).
- Since we do not know the concentration of DMT, it is unclear whether it was a placebo or it had a physiological action.
- Also it is a big question for whom ayahuasca will be effective, will it be effective not for Indigenous people? So we need to explore it.
- Also limitation of this article is the lack of information on how the dependence was determined, it is not clear what treatments were taken and whether they were after the retreat.
- A psychedelic-assisted therapy needs further research, because we don't have enough information about safety, about effectiveness.

