

# Experiências Psicadélicas e Mudança Comportamental: Realidade ou Alucinação?

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## O que é a Medicina do Estilo de Vida?

Baseada na evidência científica, a Medicina do Estilo de Vida recorre a intervenções terapêuticas dirigidas aos hábitos de vida das pessoas, para prevenir, tratar e reverter doenças não-transmissíveis. A Medicina do Estilo de Vida tem 6 pilares de atuação:



### Alimentação

Adote uma dieta saudável que provenha de sistemas alimentares sustentáveis

[Ler mais](#)



### Saúde do sono

Identifique comportamentos que ajudam a melhorar a qualidade do sono

[Ler mais](#)



### Atividade física

Uma atividade física regular e consistente é fundamental na equação da saúde

[Ler mais](#)



### Exposição a substâncias

O uso de certas substâncias aumenta o risco de doença oncológica e cardiovascular

[Ler mais](#)



### Gestão de stress

Identifique respostas ao stress e mecanismos de 'coping' para melhorar o bem-estar

[Ler mais](#)



### Relações sociais

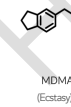
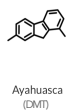
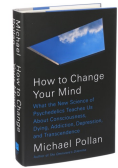
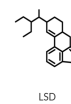
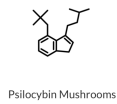
A coesão social é essencial para a resiliência emocional e para a saúde global

[Ler mais](#)

<https://spmev.org.pt>

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## Psychedelics = “mind-manifesting”



Other substances with psychedelic effects: mescaline, ketamine, ibogaine, 5-MeO-DMT, 2C-B...

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**P**  
Publico

Fevereiro de 2019

A nova vida das  
drogas psicadélicas



A boa trip?  
Ciência tenta  
domar as drogas  
psicadélicas P4 a 13

João Maio Pinto ilustração

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## Psicadélicos e Saúde (Mental / Comportamental)

CONDIÇÃO	SUBSTÂNCIA(S)
Depressão severa/resistente a tratamento	Psilocibina e DMT/Ayahuasca
Ansiedade subsequente a diagnóstico de cancro	Psilocibina
Dependência de tabaco	Psilocibina
Dependência de cocaína	MDMA e psilocibina
Dependência de álcool	Psilocibina e LSD
Stress pós-traumático	MDMA
Perturbação obsessivo-compulsiva	Psilocibina
Ansiedade associada a doença com risco de morte	LSD
Inflamação (efeito anti-inflamatório)	LSD (modelos animais)
Neurogênese	DMT/Ayahuasca (modelos animais)
Fobia e ansiedade social (adultos autistas)	MDMA
Desordens alimentares	Psilocibina

Fonte: Nichols D et al (2017). *Psychedelics as Medicines: An emerging new paradigm*. *Clin Pharmacol Ther* 101:209; Mithoefer MC et al. (2018). *Novel psychopharmacological therapies for psychiatric disorders: psilocybin and MDMA*. *Lancet Psychiatry* 3:481. Nichols D (2018); *Personal communication*. Colloquium on Psychedelic Psychiatry, Stockholm, 14/10, 2018

PÚBLICO

Público • Domingo, 17 de Fevereiro de 2019

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### Active Psychedelic Research Groups

#### USA

**Johns Hopkins University (Center)**  
 University of Arizona  
 University of California San Diego  
 University of California Berkeley  
 New York University  
 Harvard University  
 Stanford University  
 Yale University  
 University of California San Francisco  
 University of Texas at Austin  
 University of Nebraska  
 Oregon Health & Science University  
 Washington State University  
 University of Minnesota  
 Columbia University  
 Duke University

#### CANADA

University of Toronto  
 Vancouver Island University

#### EUROPE

**Imperial College London (Center)**  
 University of Basel  
 Maastricht University  
 Leiden University  
 Utrecht University  
 University of Zurich  
 University of Manchester  
 Charité – Berlin  
 University of Copenhagen  
 University College London  
 King's College London  
 Aarhus University

#### SOUTH AMERICA

University of São Paulo  
 Univ. Federal of Rio Grande do Norte  
 University of Buenos Aires

#### OCEANIA

Monash University  
 University of Sydney

### Active Psychedelic Research Trials (in progress)



Atlas of Psychedelic Research



BLOSSOM

SYNTHESIS

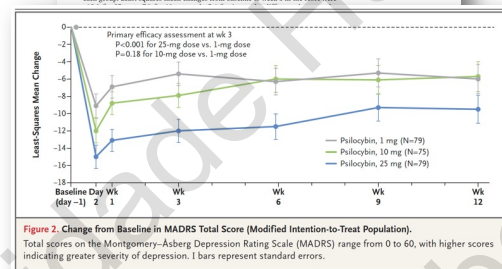
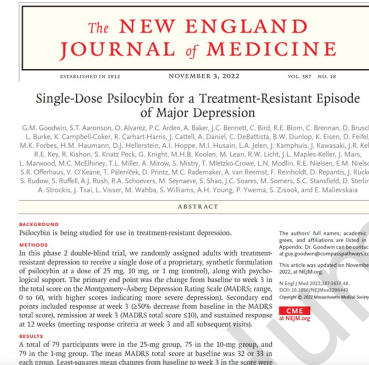


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## Scope of Psychedelic Clinical Research (clinical trials)

Topic	Trials	Participants	Papers
Depression	187	9,406	267
Treatment-Resistant (Depression)	55	4,964	46
PTSD	36	2,082	56
Suicidality (Depression)	35	1,848	27
Addiction	33	1,405	144
Bipolar Disorder (Depression)	25	1,427	40
Anxiety	23	920	118
Pain	19	1,186	39
Alcohol Use Disorder (Addiction)	19	819	44
Palliative Care or Cancer (Depression & Anxiety)	15	450	21
Postpartum (Depression)	8	853	4
Opioid Use Disorder (Addiction)	8	320	17
Headache Disorders (Pain)	8	213	13
Microdosing	7	500	33
Obsessive-Compulsive Disorder	7	392	9
Eating Disorders	7	170	15
Autism	3	106	8
Fibromyalgia (Pain)	3	70	4
Smoking (Addiction)	2	161	9
Immunity	1	60	24
Schizophrenia	1	37	8
Borderline	1	10	2
Traumatic Brain Injury	1	24	8

Source: Blossom Analysis (October 2022)



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Source: Blossom Analysis (October 2022)

## Mental Health

- Depression and anxiety
- PTSD
- OCD
- Autism, etc.

## Physical Health

- Chronic pain, fibromyalgia
- Headache disorders
- Traumatic brain injury

## Behavioral Health

- Addiction / Substance misuse (smoking, alcoholism, opioid use, etc.)
- Eating disorders
- Obesity (and related behaviors)...

## Editorial

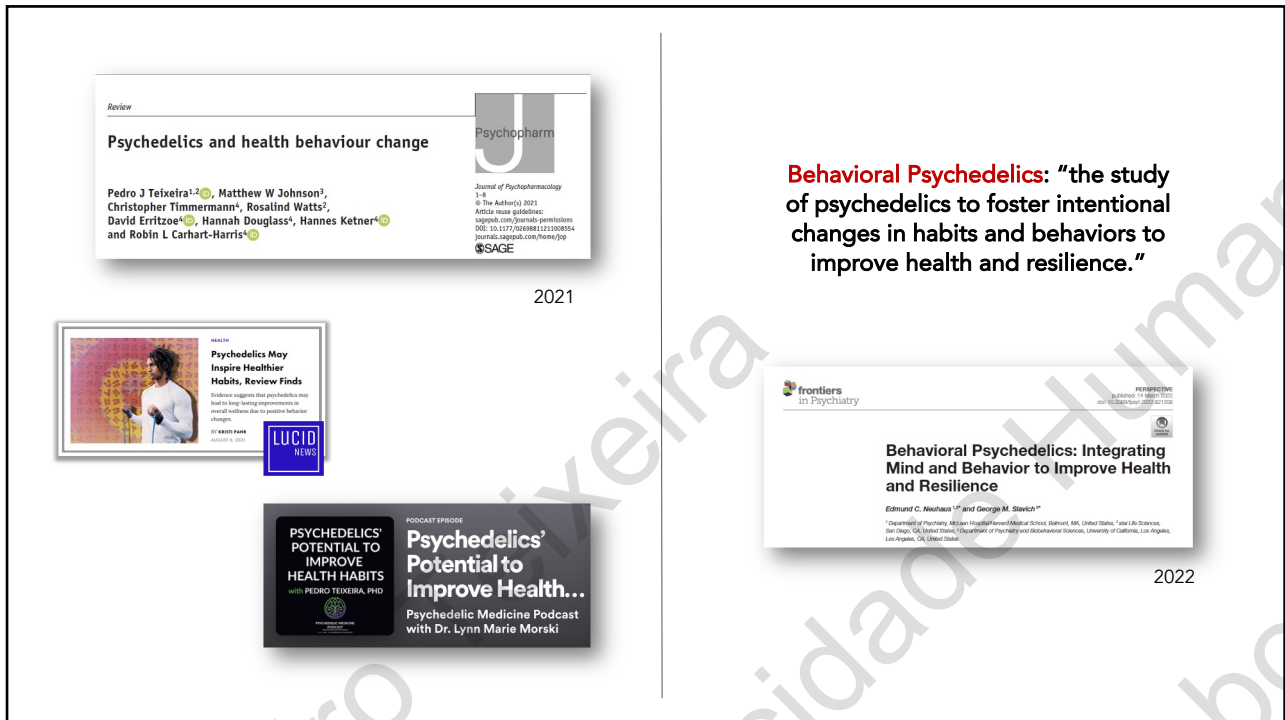
Serotonergic psychedelic treatment for obesity and eating disorders: potential expectations and caveats for emerging studies

Stephanie L. Borgland, PhD; Drew M. Neyens, PhD

J Psychiatry Neurosci 2022 June 15;47(3)

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1. Is psychedelic use associated with better health and health-related behaviors?
2. Can psychedelic experiences facilitate health behavior change?



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# 1. Is psychedelic use associated with better health and health-related behaviors \* ?

( \* diet, physical activity, meditation, BMI, etc ...)

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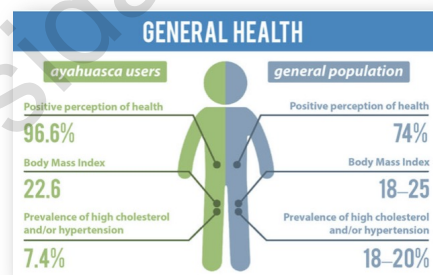
## Ayahuasca and Public Health: Health Status, Psychosocial Well-Being, Lifestyle, and Coping Strategies in a Large Sample of Ritual Ayahuasca Users

Ona et al., J Psychoactive Drugs (2019) 51:135-145



**380 ayahuasca users interviewed**  
(compared to Spain's general population)...

- **73%** ingesting **fruit** daily (vs. 43%)
- **85%** engaged in **yoga** or **meditation** (vs. 12%)
- **55%** reported being "as **physically active** as they wished"

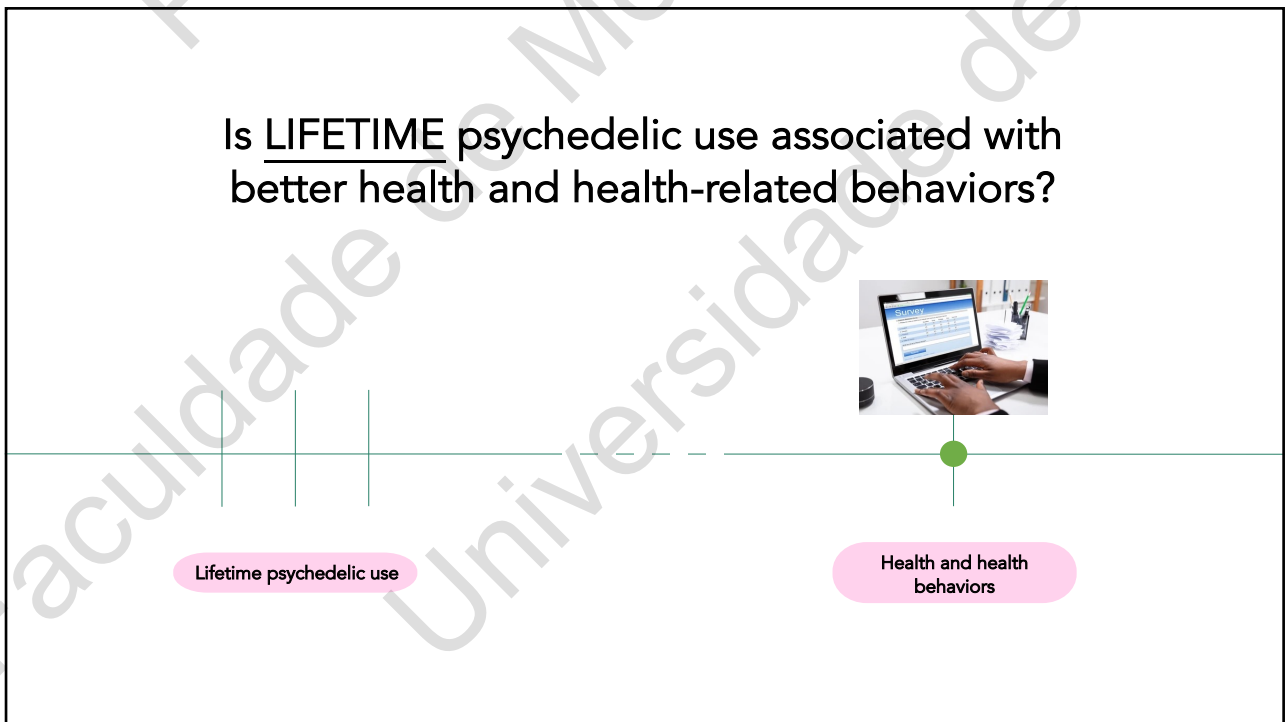


[www.iceers.org](http://www.iceers.org) (based on Ona et al., 2019)

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## scientific reports

OPEN

## Associations between lifetime classic psychedelic use and cardiometabolic diseases

Otto Simonsson<sup>1</sup>, Walter Osika<sup>2,3,4</sup>, Robin Carhart-Harris<sup>5</sup> & Peter S. Hendricks<sup>6</sup>

Scientific Reports, 2021

"Respondents who reported having tried a classic psychedelic at least once in their lifetime had **lower odds of heart disease** ( $p=.006$ ) and **lower odds of diabetes** ( $p=.036$ ) in the past year"

National US Survey on Drug Use and Health 2005-2014 (n ~376,000)

## Associations between lifetime classic psychedelic use and markers of physical health

Otto Simonsson<sup>1</sup>, James D Sexton<sup>2</sup> and Peter S Hendricks<sup>3</sup>

J Psychopharmacology, 2021

"... significantly higher odds of **greater self-reported overall health** and significantly **lower odds of being overweight or obese** versus having a normal weight"

National US Survey on Drug Use and Health 2015-2018 (n ~172,000)

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## EPIDEMIOLOGY/POPULATION SCIENCE




## Association Between Lifetime Classic Psychedelic Use and Hypertension in the Past Year

Otto Simonsson<sup>1</sup>, Peter S. Hendricks, Robin Carhart-Harris, Hannes Kettner, Walter Osika<sup>2</sup>

**ABSTRACT:** Using data from the National Survey on Drug Use and Health (2005–2014), weighted to be representative of the US adult population, the present study investigated the association between lifetime classic psychedelic use and hypertension in the past year among adults in the United States. The results showed that respondents who reported having used a classic psychedelic at least once in their lifetime had significantly lower odds of hypertension in the past year after adjusting for several potential confounders (adjusted odds ratio, 0.86 [0.81–0.91];  $P<0.0001$ ). Notably, when analyzing the associations between hypertension in the past year and lifetime use of the main classes of classic psychedelics, namely tryptamines (N,N-dimethyltryptamine, ayahuasca, and psilocybin), lysergic acid diethylamide (a lysergamide), and phenethylamines (mescaline, peyote, and San Pedro), **only the association with lifetime tryptamine use was significant** (adjusted odds ratio, 0.80 [0.73–0.89];  $P=0.0001$ ). Though these associations are novel, rigorous randomized controlled trials are warranted to investigate potential causal pathways of classic psychedelics on blood pressure. (**Hypertension. 2021;77:1510–1516. DOI: 10.1161/HYPERTENSIONAHA.120.16715.**) • [Data Supplement](#)


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International Journal of  
Environmental Research  
and Public Health

Int. J. Environ. Res. Public Health 2022, 19, 11353



Article


## Association between Lifetime Classic Psychedelic Use and Sick Leave in a Population-Based Sample

Christin Mellner <sup>1,\*</sup>, Micael Dahlen <sup>2</sup> and Otto Simonsson <sup>3,4</sup>

Original Paper

## Associations between MDMA/ecstasy use and physical health in a U.S. population-based survey sample

Grant Jones, M.A.<sup>1</sup>, Jocelyn A. Ricard, B.S.<sup>2</sup>, Peter Hendricks, Ph.D.<sup>3</sup> and Otto Simonsson, Ph.D.<sup>4</sup>



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> J Psychoactive Drugs. 2022 Jan 9;1-8. doi: 10.1080/02791072.2021.2022816.

Online ahead of print.

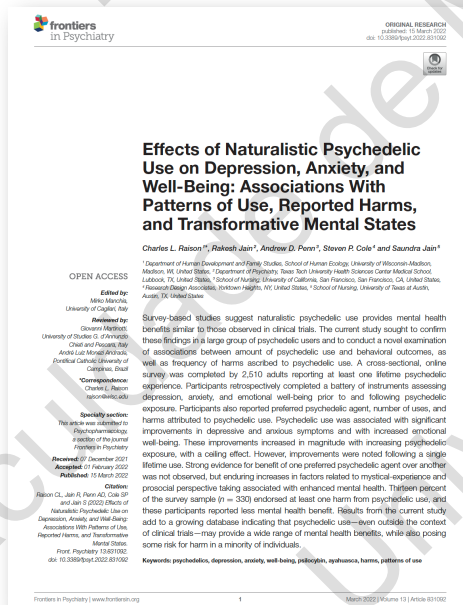
## Linkages between Psychedelics and Meditation in a Population-Based Sample in the United States

Otto Simonsson<sup>1 2 3</sup>, Simon B Goldberg<sup>1 4</sup>



**"Exposure to meditation was associated with lifetime classic psychedelic use and ego dissolution in covariate-adjusted models. (...)**

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Online survey was completed by 2,510 US adults reporting at least one lifetime psychedelic experience...

**49.4% reporting "improvement" in eating habits** after their experience(s)

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JOHNS HOPKINS

Center for Psychedelic &  
Consciousness Research

### Persisting Reductions in Cannabis, Opioid, and Stimulant Misuse After Naturalistic Psychedelic Use: An Online Survey

Garcia-Romeu et al (2020) Front Psychiatry 10:955

"444 participants...

- **59% endorsed "improved diet",**
- **58% endorsed "increased exercise"**

as a result of their psychedelic experience."

#### REFERENCE PSYCHEDELIC EXPERIENCE:

- LSD (43%), psilocybin-containing mushrooms (29%)
- Moderate (47%), high (33%), or very (12%) dose

### Cessation and reduction in alcohol consumption and misuse after psychedelic use

J Psychopharmacology 2019, 33:1088

Albert Garcia-Romeu<sup>1</sup>, Alan K Davis<sup>1</sup>, Fire Erowid<sup>2</sup>,  
Earth Erowid<sup>2</sup>, Roland R Griffiths<sup>1,3</sup> and Matthew W Johnson<sup>1</sup>

US survey of 343 people who claimed to have stopped or reduced **alcohol consumption** after a psychedelic experience, **63%** of the sample also endorsed 'improved diet,' and **55%** reported 'increased exercise'.

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### DEPRESSION (PsiloDep1) STUDY

"... there were some major lifestyle changes; nearly **half of the sample** reported improvements to diet, exercise, and cutting down on drinking alcohol."

Watts et al (2017) J Humanistic Psychology

Imperial College  
LondonTHE CENTRE FOR  
PSYCHEDELIC RESEARCH

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## TOBACCO CESSATION STUDIES

Of sample undergoing psilocybin treatment for tobacco use, **51% also endorsed other "positive behavior changes"**

*(more time in nature, taking time for one self, prosocial behaviours (e.g. volunteering, community work), and greater engagement with art)*

(Johnson, 2014; Moorani, 2018)

Follow-up study indicated that changes **appeared to be maintained** for 1-2 years, which was validated by family members

(Johnson, 2017)

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Harm Reduction Journal (2019) 16:43

**Regular microdosers** of LSD and psilocybin mushrooms (n=278) reported improvements in **meditative practice (49%), exercise (49%), eating habits (36%)** and sleep (29%).

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1. Is psychedelic use associated with better health and health-related behaviors? (~50%?)

2. Can psychedelic experiences facilitate health behavior change?



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1. Is psychedelic use associated with better health and health-related behaviors?

2. Can psychedelic experiences facilitate health behavior change?



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## News &amp; Publications



### Johns Hopkins Receives Grant for Psilocybin Research in Smoking Cessation

The award of nearly \$4 million is the first federally funded grant for psychedelic treatment in more than 50 years.

Nov 2021



JOHNS HOPKINS  
Center for Psychedelic &  
Consciousness Research

"Participants underwent a **15-week combination treatment** consisting of four weekly preparatory meetings integrating **CBT, elements of mindfulness training, and guided imagery** for smoking cessation."

### Long-term Follow-up of Psilocybin-facilitated Smoking Cessation

*Am J Drug Alcohol Abuse*, 2017 January; 43(1): 55-60

Matthew W. Johnson, PhD<sup>1</sup>, Albert Garcia-Romeu, PhD<sup>1</sup>, and Roland R. Griffiths, PhD<sup>1,2</sup>

- ✓ At 12-month follow-up, 10 participants (67%) were confirmed as **smoking abstinent**.
- ✓ And 13 participants (87%) rated their experiences among the **five most personally meaningful** and spiritually significant experiences of their lives.

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### Cessation and reduction in alcohol consumption and misuse after psychedelic use

*Journal of Psychopharmacology*  
2019, Vol. 33(9) 1088-1101

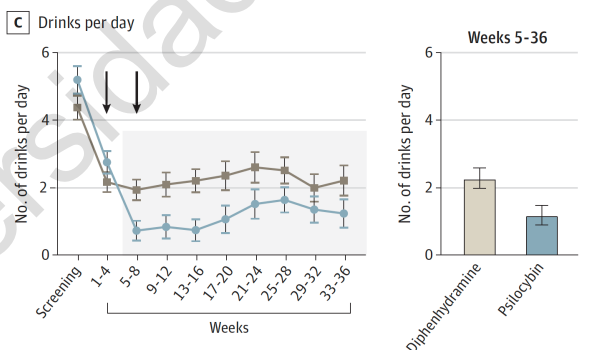
Albert Garcia-Romeu<sup>1</sup>, Alan K Davis<sup>1</sup>, Fire Erowid<sup>2</sup>,  
Earth Erowid<sup>2</sup>, Roland R Griffiths<sup>1,3</sup> and Matthew W Johnson<sup>1</sup>

- ✓ 343 individuals (78% males) with **prior AUD reporting cessation or reduction** in alcohol use following psychedelic use in nonclinical settings
- ✓ Most took a moderate or high dose of **LSD (38%) or psilocybin (36%)**.
- ✓ After the psychedelic experience **83% no longer met AUD criteria**.
- ✓ 28% endorsing psychedelic-associated **changes in life priorities or values**



Research  
JAMA Psychiatry | Original Investigation  
Percentage of Heavy Drinking Days Following Psilocybin-Assisted Psychotherapy vs Placebo in the Treatment of Adult Patients With Alcohol Use Disorder  
A Randomized Clinical Trial

Michael P. Bogenschutz, MD, Stephen Ross, MD, Sarah Woot, MD, Tara Rutter, MA, Alyssa A. Fox-Graham, PhD, Eugene Laska, PhD, Scott R. Honeysuckle, PhD, Kelly O'Connell, MD, PhD, Lindsey T. O'Connell, MA, Samantha Robinson, MA, John Bonomo, MD, J. Scott Tonigan, PhD, Lindsay Worth, MA



"The psychotherapy [12 sessions] included **Motivational Interviewing and Cognitive Behavioral Therapy** for AUD."

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1. Is psychedelic use associated with better health and health-related behaviors?

2. Can psychedelic experiences *facilitate* health behavior change?

If so, how... by which mechanisms?

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"Window of opportunity"  
for change...

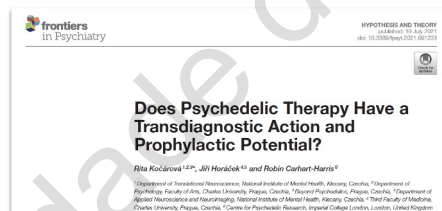
#### HOW?

"Psychedelics relax prior assumptions or beliefs: perceptually, emotionally, cognitively and philosophically.

... open a door to heightened sensitivity to context, an ideal pre-condition for effective change."



Robin Carhart-Harris



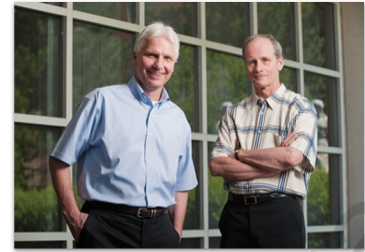
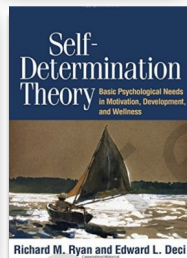
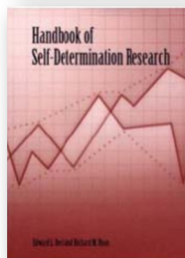
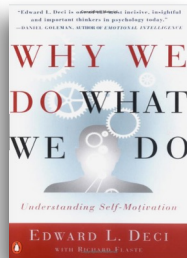
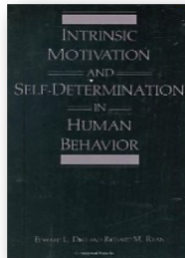
#### TRANSDIAGNOSTIC MECHANISMS?

- Neuroplasticity
- Relaxed prior beliefs
- Enhanced learning processes
- Psychological / cognitive flexibility
- Mindfulness
- Creativity
- Psychological insight
- Resilience
- Connectedness

Frontiers in Psychiatry (2021)

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## Self-Determination Theory



Richard Ryan & Edward Deci

### 3 Basic Psychological Needs:

- Autonomy
- Competence
- Relatedness

"Transdiagnosical mechanisms"?

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Increased Self-Determination?

### RELATEDNESS

"Noorani et al. (2018) noted that sessions left participants with lasting impressions of **interconnectedness** and an increase in prosocial behavior."



**Psychedelic Communitas: Intersubjective Experience During Psychedelic Group Sessions Predicts Enduring Changes in Psychological Wellbeing and Social Connectedness**

H. Kettner<sup>1\*</sup>, F. E. Rossas<sup>1,2,3</sup>, C. Timmermann<sup>1</sup>, L. Kärtner<sup>1</sup>, R. L. Charhart-Harris<sup>1</sup> and L. Roseman<sup>1</sup>

### COMPETENCE

"Nielson et al. (2018) included a category of '**confidence, motivation and resolve**' and another of '**commitment to change**' as descriptive of participants' experiences. In turn, Watts et al. (2017) reported feeling more '**confident**', '**resilient**' and '**effective**'."

### AUTONOMY

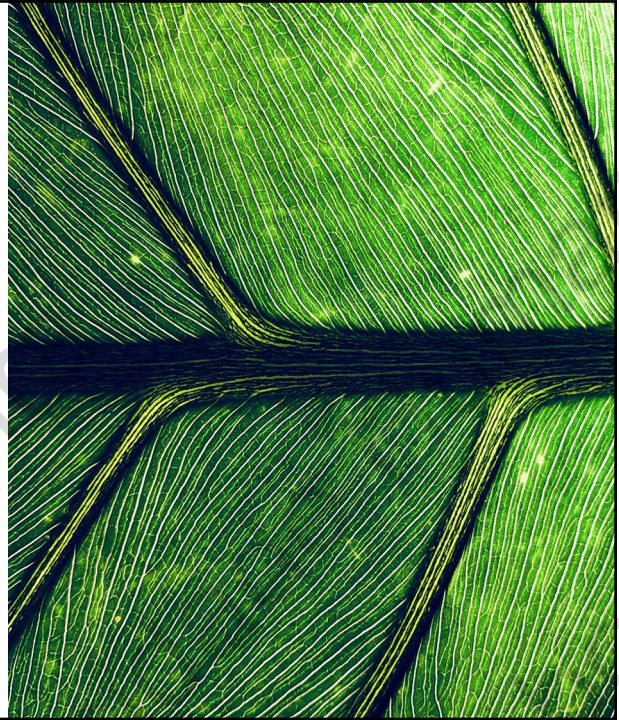
"Noorani et al. (2018) found insights into self-identity (e.g., **unveiling of true self, and honesty with oneself**) to result from sessions, and Watts et al. (2017) reported increased connection to self and feeling **more attuned with ones' internal needs and inherent worth** as central processes..."

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## THERAPEUTIC / INTERVENTION MODELS (PSYCHEDELICS & HBC)

- **Motivational Enhancement Therapy /  
Motivational Interviewing** (smoking cessation)  
(Johnson et al, 2014)
- **MI / Cognitive Behavior Therapy** for alcohol  
reduction  
(Bogenschutz et al, 2015; 2022)
- **ACT - Acceptance and Commitment Therapy**  
(see Luoma and Watts, 2020)
- **12-step programs** for substance use disorder  
(see Yaden et al, 2021)
- Self-determination theory for healthy habits?



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PANO-SR  
HEALTH BEHAVIOUR REGULATION AND LIFESTYLE CHANGE

## PSYCHEDELICS AND HEALTH BEHAVIOUR CHANGE



UNIVERSIDADE  
DE LISBOA



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OUR TEAM PANO-SR

## RESEARCH TEAM



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RESEARCH OVERVIEW PANO-SR

## OVERVIEW OF RESEARCH STUDIES



Systematic Review of Naturalistic Studies

Practitioners and Health Behavior Change

Ayahuasca Use and Public Health (Portugal)

Ceremony Study 3.0 (H. Behavior Change)

Portuguese Mental Health Professionals and Psychedelics


Health Behavior Change Survey







*November 2022 Update*

- Mechanisms and effects
- Practitioners / Professionals
- Population / large sample studies
- Portuguese reality
- PhD Project (Laura Carvalho)

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
OUR TEAM PANO-SR


 **RESEARCH COLLABORATORS**  
(in alphabetical order)

	<b>ARLEN MOLLER</b> PhD Social & Health Psychology Illinois Institute of Technology		<b>MARTA MARQUES</b> PhD Health Psychology NOVA Medical School, Lisbon
	<b>CHRIS TIMMERMANN</b> PhD Neuroscience Imperial College London		<b>MICHIEL VAN ELK</b> PhD Cognitive Neuroscience Leiden University
	<b>HANNES KETTNER</b> MS Clinical and Cognitive Neuroscience Imperial College London		<b>TALEA CORNELLIUS</b> PhD Health Psychology Columbia University

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OUR PROJECTS PANO-SR

 **Ceremony Study 3.0 – Health Behavior Change**




Psychedelic Experiences in Ceremonial Contexts: Changes in Health-Related Behaviors and Determinants

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## Ceremony Study 3.0 – Health Behavior Change

GOAL

To describe pre-post changes in health behaviors and determinants in participants of guided psychedelic ceremonies

METHODOLOGY

Observational (pre-post), ecological


COLLABORATORS

Robin Carhart-Harris, Hannes Kettner

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## Ceremony Study 3.0 – Health Behavior Change

### TIMELINE

Retreat	Time point 1 (2 weeks before the ceremony)	Time point 2 (Minutes to hours before the ceremony)	Time point 2 (2nd ceremony) (Minutes to hours before the ceremony)	Time point 3 (On the day after the ceremony experience)	Time point 3 (2nd ceremony) (On the day after the ceremony)	Time point 4 (On the day after leaving the ceremony/retreat)	Time point 5 (Two weeks after the ceremony)	Time point 6 (Four weeks after the ceremony)	Time point 7 (Six months after the experience)
Date sent	07/04	09/04		10/04		10/04	22/04	06/05	09/10
Retreat 1 (08/04/22)	19	17	N/A	20	N/A	20	17	9	5
Date sent	09/05	27/05	28/05	28/05	29/05	30/05	12/06	26/06	29/11
Retreat 2 (28/05/22)	8	6	2	3	4	5	2	2	
Date sent	20/06	02/07		03/07		04/07	17/07	31/07	03/01/2023
Retreat 3 (02/07/22)	8	5	N/A	7	N/A	8	7	7	
Date sent	15/08	27/08	N/A	28/08	N/A	29/08	10/09	24/09	27/02/2023
Retreat 4 (27/08/22)	15	7	N/A	8	N/A	12	11	10	
Date sent	12/09	24/09	N/A	25/09	N/A	26/09	08/10	22/10	24/02/2023
Retreat 5 (L) (24/09/22)	7	4	N/A	6	N/A	5	4		
TOTAL	57	39	2	44	4	50	41	28	5

Nov 2022

June 2024

April 2022

Data collection started

April '22 – December '23

Data collection

Data analysis for PhD project

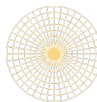
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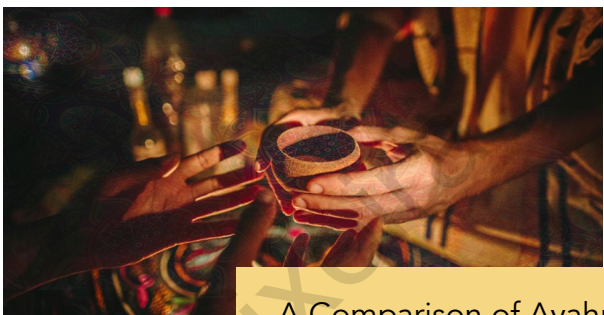
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# Ayahuasca Use and Public Health in Portugal



## A Comparison of Ayahuasca Users and the Portuguese General Population on Physical and Mental Health Markers

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JOURNAL OF PSYCHOACTIVE DRUGS

https://doi.org/10.1080/17513757.2019.1679691

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### Ayahuasca and Public Health: Health Status, Psychosocial Well-Being, Lifestyle, and Coping Strategies in a Large Sample of Ritual Ayahuasca Users

Genís Ona, M.Sc.<sup>a</sup>, Maja Kohsek, M.Sc.<sup>a,b</sup>, Tomás Massaguer, B.Sc.<sup>a</sup>, Alfred Gomariz, B.Sc.<sup>a</sup>, Daniel F. Jiménez, M.Sc.<sup>a</sup>, Rafael G. Dos Santos, Ph.D.<sup>a,c</sup>, Jaime E. C. Hallak, Ph.D.<sup>a,d</sup>, Miguel Ángel Alcázar-Córcoles, Ph.D.<sup>a</sup>, and José Carlos Bouso, Ph.D.<sup>a</sup>

<sup>a</sup>International Center for Ethnobotanical Education, Research, and Services (ICEERS), Barcelona, Spain; <sup>b</sup>Department of Anthropology, Philosophy and Social Work, Universitat Rovira i Virgili, Tarragona, Spain; <sup>c</sup>Department of Neuroscience and Behavior, Ribeirão Preto Medical School, University of São Paulo, São Paulo, Brazil; <sup>d</sup>National Institute for Translational Medicine (ICTM), CAPES, Ribeiro Preto (SP), Brazil; <sup>e</sup>Departamento de Psicología Biológica y de la Salud, Facultad de Psicología, Universidad Autónoma de Madrid, Madrid, Spain

### Ayahuasca and Public Health II: Health Status in a Large Sample of Ayahuasca-Ceremony Participants in the Netherlands

Maja Kohsek, Genís Ona<sup>a,b</sup>, Michiel van Elk<sup>a</sup>, Rafael Guimarães Dos Santos<sup>a,c,d</sup>, Jaime E. C. Hallak<sup>a,d</sup>, Miguel Ángel Alcázar-Córcoles<sup>a</sup>, and José Carlos Bouso<sup>a,d</sup>

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**ABSTRACT**

Assessing the health status of ayahuasca users has been challenging due to the limitations involved in randomized clinical trials and psychometric approaches. The main objective of this study is the implementation of an approach based on public health indicators. We developed a self-administered questionnaire that was administered to long-term ayahuasca users around Spain. The questionnaire was administered face-to-face to participants (n = 383) in places where ayahuasca ceremonies were occurring. Public health indicators were compared with Spanish normative data, and intergroup analyses were conducted. Long-term ayahuasca use was associated with higher positive perception of health or with a healthy lifestyle, among other outcomes. Fifty-six percent of the sample reported reducing their use of prescription drugs due to ayahuasca use. Participants who used ayahuasca more than 100 times scored higher in personal values measures. The main conclusion of this study is that a respectful and controlled use of hallucinogenic/psychotropic drugs taken in communicative settings can be incorporated into modern society with benefits for public health. This new approach, based on the use of health indicators that were not used in previous ayahuasca studies, offers relevant information about the impact of long-term exposure to ayahuasca on public health.

**KEYWORDS**

ayahuasca; hallucinogens; therapy; psychedelics; psychological well-being; public health

**Introduction**

Ayahuasca is a decoction commonly made with the *Banisteriopsis caapi* vine (Schultes 1967). It is used in traditional contexts as a medicine, for spiritual purposes, and in communistic ceremonies to strengthen social bonds (Andritzky 1989). *B. caapi* contains inhibitors of the monoamine oxidase (MAOI) compounds, such as harmine, harmaline, and tetrahydroharmine, which prevent the endogenous breakdown of compounds from the plants that are added to ayahuasca, thereby enhancing their biological effects (McKenna, Towers, and Abbott 1984).

The most common presentation of ayahuasca is the combination of *B. caapi* with *P. viridis*, or with the vine *Diplopteryx cabrerana*, which contains the hallucinogenic compound N,N-Dimethyltryptamine (DMT). The exposure of ayahuasca from the jungle into urban Brazil (Grob et al. 1996; Labate 2004; Luna 2011; McKenna 2004) and then internationally (Schieber and Bouso 2013) has led to its being used in multiple electric and syncretic ways throughout the world.

The international expansion of the use of ayahuasca is occurring in a context wherein serotonergic psychedelic research and therapy are gaining new recognition in the field of biomedicine, a phenomenon that several authors refer to as a “psychedelic renaissance” (Kotler 2010; Sessa 2010; Tupper and Labate 2014). Polycyclic, heterocyclic, and aromatic compounds, such as psilocybin, lysergic acid diethylamide (LSD), psilocybin, and MDMA (3,4-Methylenedioxymethamphetamine) are being studied for the treatment of addiction, major depression, cluster headache, obsessive-compulsive disorder, post-traumatic stress disorder (PTSD), anxiety and depression associated with life-threatening diseases, and social anxiety among individuals with autism (Daston et al. 2018; dos Santos et al. 2018; dos Santos, Bouso, and Hallak 2016; Melchior, Grob, and Recroft 2016).

At the same time, contemporary psychobiological research is occurring in a particular moment when biomedicine is being questioned as the main source of evidence for public health decisions (Dixon and Wilsdon 2018). In the field of psychopharmacology (focusing on psychiatric and

following acute administration in controlled settings (Riba et al. 2001; Rocha et al. 2021) and after prolonged ritual use (Barbosa et al. 2012, 2016; Bouso et al. 2012; Gable 2007; Meli et al. 2019). Observational evidence also suggests a low risk for abuse (Barbosa et al. 2012, 2016; Bouso et al. 2012; Fábregas et al. 2010; Gable 2007) and beneficial effects for substance-related disorders, mood and anxiety disorders, and improvement of general well-being (Argento et al. 2019; Bouso et al. 2012; Cruz and Nappo 2019; Gable 2007; González et al. 2021; Grob et al. 1996; Horak, Haskovic, and Verter 2018; Lavin et al. 2017; Ona et al. 2019; Perkins et al. 2021a, 2021b; Revez et al. 2021).

Recent clinical trials showed that a single dose of ayahuasca induced beneficial effects in treatment-resistant major depressive disorder (Núñez et al. 2015; Palhano-Fontes et al. 2019; Sánchez et al. 2016), including reductions in suicidality (Zifman et al. 2021), and in social anxiety disorder (Dos Santos et al. 2016, 2021). Additionally, certain components of ayahuasca have

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2019



2022




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## Ayahuasca Use and Public Health in Portugal


GOAL	To compare Ayahuasca users in Portugal with national public health indicators
METHODOLOGY	Population case-comparison cross-sectional study (online survey); replication study of Spanish and Dutch data
COLLABORATORS	Maja Kohek, José Carlos Bouso (ICEERS)

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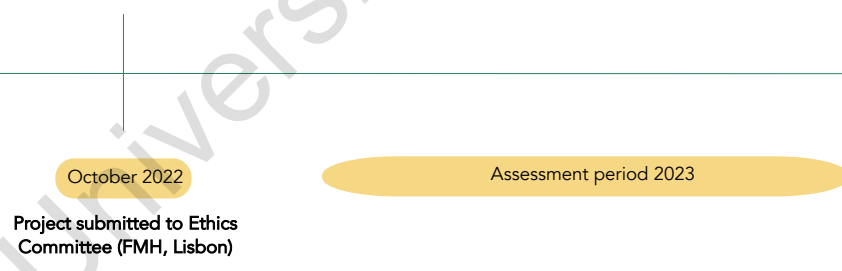
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## Ayahuasca and Public Health in Portugal

### TIMELINE



October 2022  
Project submitted to Ethics Committee (FMH, Lisbon)

Assessment period 2023

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## Psychedelic Practitioners and Health Behavior Change



Health Behaviour Change and  
Psychedelics: The Perspective of  
Psychedelic Practitioners

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## Health Behavior Change and Psychedelics Survey

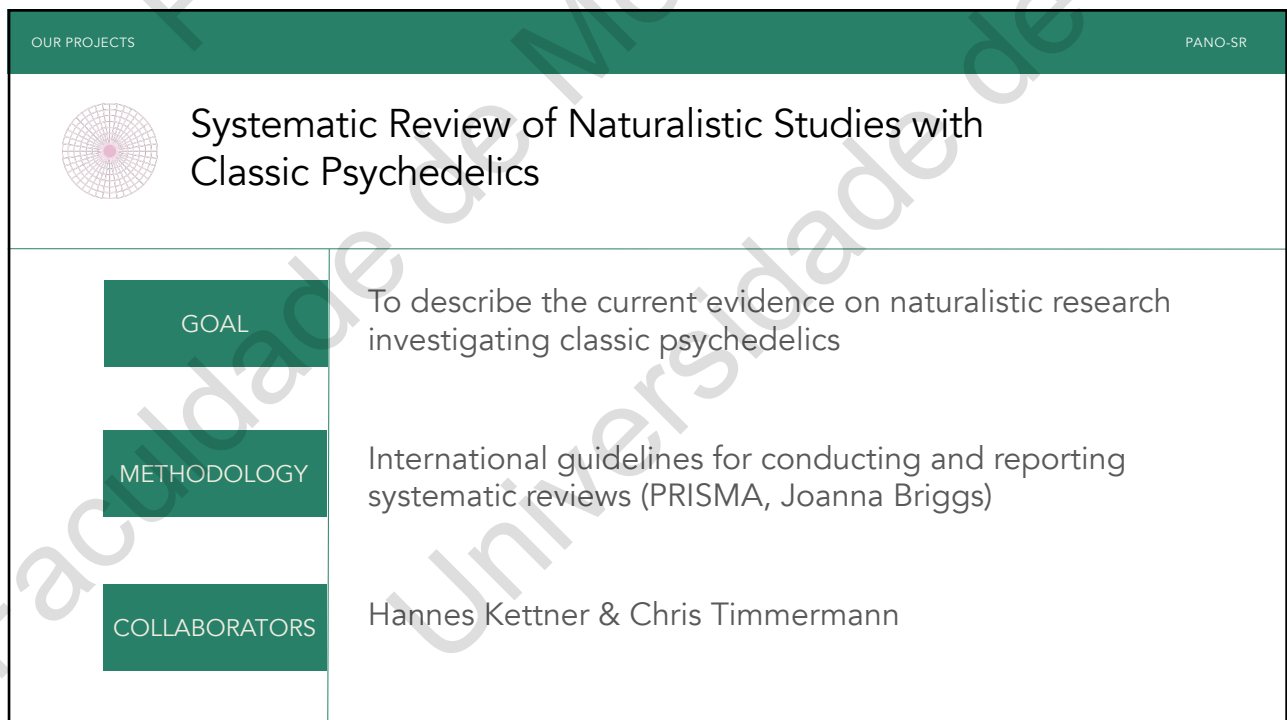


Characteristics of Physical Activity and Health  
Behavior Change as a Consequence of Past  
Psychedelic Experiences

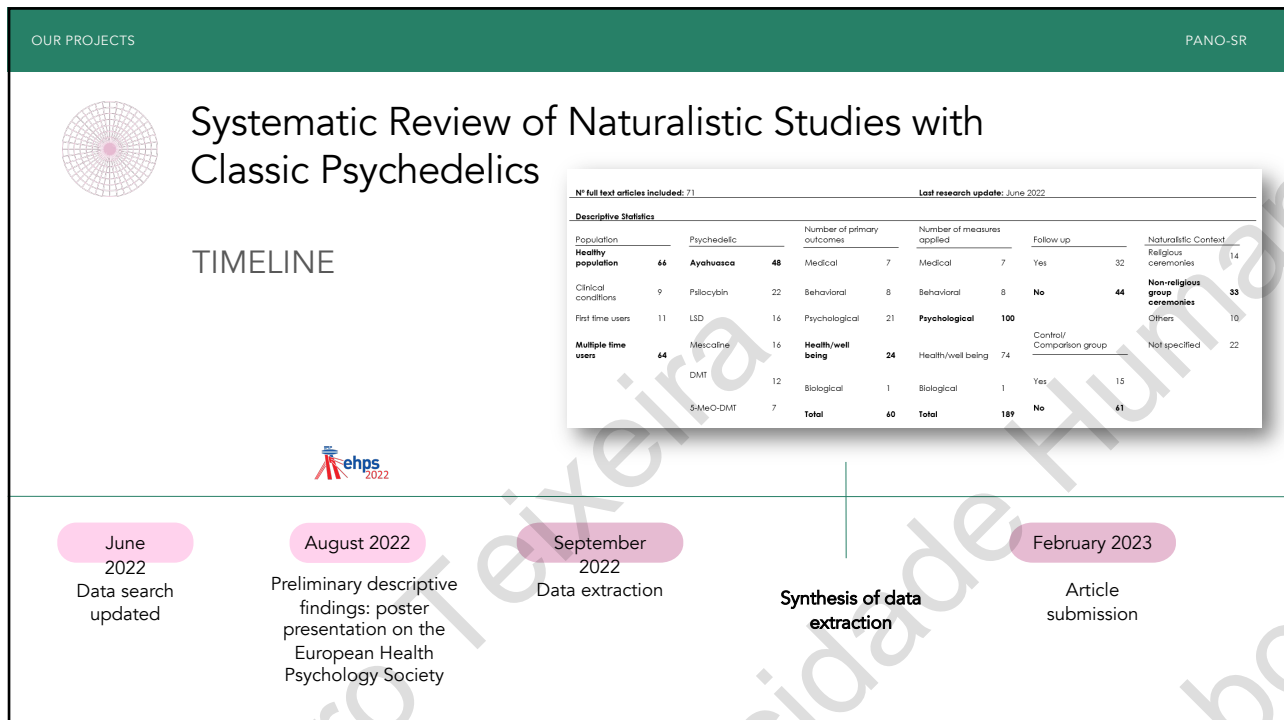
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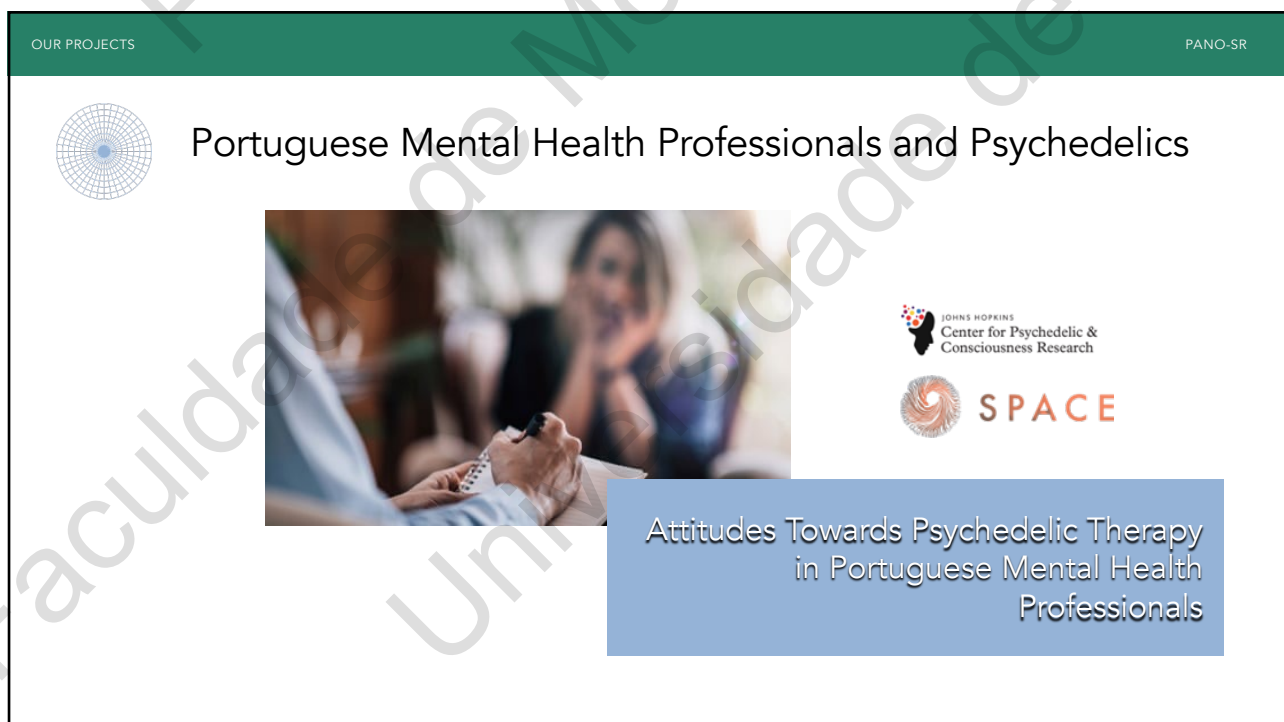
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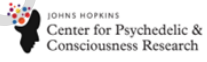

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## Portuguese Mental Health Professionals and Psychedelics

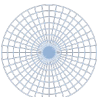
GOAL	Describe attitudes, knowledge and behaviors of Portuguese psychiatrists and psychologists towards psychedelic-assisted therapy
METHODOLOGY	Observational study via online questionnaire (one assessment)
COLLABORATORS	Albert Garcia (Johns Hopkins Univ.), SPACE


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## Portuguese Mental Health Professionals and Psychedelics



**TIMELINE**

- Psilocybin n=192
- MDMA n=143
- Ketamine n=129

(as of Oct 2022)

August 2022

June 2022  
Ethics approval - FMH

Preliminary findings:  
European Health Psychology Society

October 2022

Apr-May 2023  
Data analysis

June 2022 - April 2023  
Data collection

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## Self-Regulation in Physical Activity, Nutrition and Obesity

This research group focuses on behavioral and psychosocial aspects of physical activity and exercise, nutrition and eating behavior, and obesity/weight control.

### Overview of Research Program

1/

Motivational and self-regulatory determinants of health-related behaviors such as physical activity, healthy eating, nature immersion and contemplative practices.

2/

The association of physical activity and physical fitness with mental health, with an emphasis on determinants and mechanisms underlying depressive symptomatology

3/

Behavior change interventions with an impact on health and well-being, focusing on physical activity, eating behaviour, weight management, and nature-related behaviors.

4/

The experience of alternative states of consciousness and the adoption and regulation of behaviors such as physical activity, eating, nature immersion, and contemplative practices.

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