

For immediate release

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Setting, Acute Reaction and Mental Health History Shape Ayahuasca's Longer-term Psychological Effects

Some acute post-ayahuasca “adverse effects” like visual distortions and hallucinations were associated with better reported mental health at a later date, while other adverse effects like feeling isolated or energetically attacked were associated with worse mental health later on

Barcelona — Mounting evidence supports ayahuasca’s potential to improve mental health, but its long-term effects are shaped by both individual mental health history and the context in which this traditional medicine is used, according to a study published on April 30, 2025 in the open access journal PLOS Mental Health by Óscar Andi3n from Research Sherpas, Spain; Jos3 Carlos Bouso from the International Centre for Ethnobotanical Education, Research, and Services (ICEERS) and the University of Rovira i Virgili, Spain; Daniel Perkins from the University of Melbourne and Swinburne University; and colleagues.

Ayahuasca, a beverage traditionally used by Indigenous communities in South America, has received increasing interest from Western researchers and clinicians for its potential mental health benefits, but its potential risks and adverse effects remain understudied. In a previous review of adverse effects reported in a global survey of ayahuasca ceremony participants, Jos3 Carlos Bouso, Andi3n, and colleagues found that over half reported adverse mental states after ayahuasca use, with greater adverse experiences associated with a history of mental illness and using the drug in non-traditional settings. Importantly, potential adverse effects reported ranged from visual distortions or hallucinations to “feeling down, depressed, or hopeless”, “feeling disconnected or alone”, and “feeling energetically attacked”.

New findings

In their new analysis, the authors applied machine learning and classical statistical approaches to the same dataset to better understand the mediating factors shaping the relationship between adverse events and mental health outcomes in ayahuasca

users. The survey included 10,836 participants, of whom 5,400 with complete data were included in the final analysis. Among these, 14.2% had a prior anxiety disorder and 19.7% a prior depressive disorder. Although the Global Ayahuasca Survey reflects a large, diverse population of users, it was voluntary and administered potentially years after an individual's ayahuasca experience, introducing self-selection and recall biases.

The researchers found that participants with a history of anxiety or depression, as well as those using ayahuasca in non-traditional settings, were more likely to report adverse mental states after use. Some "adverse effects" like visual distortions, however, were associated with significantly better mental health outcomes reported in the present. Adverse effects like "feeling down", "feeling disconnected", and "feeling energetically attacked" however, were associated with poorer mental health in participants in the longer term. The authors suggest that the context in which ayahuasca is used, as well as factors like age and mental health history, influence whether an individual experiences psychological benefits following an ayahuasca experience, and note that "adverse" effects of ayahuasca may be subjective.

Their findings appear to indicate that it would be more beneficial to use ayahuasca under the supervision of experienced users who can provide additional support to those with a history of depression, who may otherwise face a higher risk of negative outcomes. They propose that, while psychedelics are becoming increasingly medicalized, ayahuasca is most often consumed in group or community settings. Therefore, future studies should examine the effects of ayahuasca use in these real-life communal contexts.

Dr. José Carlos Bouso notes: "What stood out most to us was the significant difference in mental health outcomes between users who had supportive environments [during their use] and those who didn't. This emphasizes the importance of a responsible and well-prepared setting for those seeking healing through ayahuasca."

The authors add: "Our study reveals that the post-ayahuasca mental states, traditionally seen as adverse, can contribute to improved mental health, especially in individuals with previous anxiety and depressive disorders. This suggests the need for a more nuanced understanding of these states as potentially beneficial experiences."

Additional quotes:

On the research process:

"The insights gathered from the Global Ayahuasca Survey (GAS) provided a deeper understanding of the complex relationship between ayahuasca use and mental health outcomes. It was particularly interesting to see how the setting, preparation, and integration practices play a pivotal role in shaping the overall experience" (Dr. José Carlos Bouso).

On the use of ayahuasca:

"Ayahuasca use, when experienced in safe, supportive environments, may offer therapeutic benefits, particularly for individuals with a history of mood disorders, highlighting the importance of the ceremony's setting and the role of facilitators."

On the role of spirituality:

"Our research also highlights that the spiritual significance of ayahuasca ceremonies plays a protective role, reducing adverse emotional states like anxiety, depression, and disconnection, thus contributing to overall mental health improvement."

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