

Ceremony Leaders' Perspectives on the Good, the Bad, and the Ugly of Ayahuasca Drinking in Ceremonial Contexts

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ABSTRACT: Ayahuasca is a psychedelic plant-based tea from the Amazon used for spiritual and medicinal purposes. Research suggests its utility in the treatment of various mental health conditions. Potential risks are also being identified. Largely absent from this literature have been the perspectives of ayahuasca ceremony leaders, whose knowledge and experience are vital to understanding the potential risks and benefits of drinking ayahuasca. This qualitative study explored the perspectives of 15 ayahuasca ceremony leaders regarding facilitative ceremony conditions, contraindications, and psychedelic emergencies. An inventory of every concern related to ceremonial ayahuasca use mentioned by the leaders is also presented. The findings are useful for clinicians and policy-makers, and relevant to the application of psychedelic medicine more broadly, informing the dialogue regarding the potential utility of psychedelic-assisted mental health interventions.

Keywords: ayahuasca; plant medicine; psychedelic therapy; risks; benefits; ethics

Ayahuasca is a psychedelic plant-based medicine that has been employed for medicinal, spiritual, artistic, and practical purposes by Indigenous Amazonian communities for centuries (Fotiou, 2016; Luna, 2011). Promising findings have been reported regarding its utility in the treatment of mental health conditions including anxiety (dos Santos et al., 2007; Jacob & Presti, 2005), depression (e.g., de Lima Osório et al., 2015; Palhano-Fontes et al., 2019), suicidality (Zeifman et al., 2019), substance use disorders (e.g., Loizaga-Velder & Verres, 2014; O'Shaughnessy et al., 2021), and eating disorders (Lafrance et al., 2017; Renelli et al., 2020). Current biomedical hypotheses favor complex pharmacological, metabolic, and neurological mechanisms of action (dos Santos & Hallak, 2021; Ruffell et al., 2020) related to sensory, memory, and emotion processing

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(Domínguez-Clavé et al., 2016), in concert with other variables related to set and setting (e.g., Gómez-Sousa et al., 2021; Grof, 1970; Leary et al., 1963; Metzner & Leary, 1967).

Potential risks associated with drinking ayahuasca have typically been contextualized within evidence supporting ayahuasca as generally safe for use among individuals for whom it is indicated, in supportive settings (e.g., dos Santos, Balthazar et al., 2016; dos Santos, Bouso et al., 2017). Routinely mentioned are cautions about ayahuasca use in the context of contraindicated preexisting psychiatric (e.g., psychosis, mania) and physiological conditions (e.g., gastrointestinal lesions; cardiovascular, cerebral vascular, liver, and kidney diseases; hypertension), as well as certain pharmaceuticals (e.g., selective serotonin reuptake inhibitors [SSRIs]), foods (e.g., tyramine-containing), dietary supplements (e.g., St. John's wort), and other drugs (e.g., cannabis) (e.g., Aronovich & Labate, 2021; Callaway & Grob, 1998; Dobkin de Rios & Rumrill, 2008; dos Santos et al., 2017; Frecska, 2007; Gable, 2007; Ray & Lassiter, 2016; Ruffell et al., 2020; Trichter, 2010). More research is required to clarify the nature and severity of these potential risks (Bouso et al., 2022; Gómez-Sousa et al., 2021).

Potential emotional risks include experiences of paranoia, terror and anxiety, and “overwhelming feelings of sadness and pain” (Gómez-Sousa et al., 2021, p. 166). Trichter (2010) noted that drinking ayahuasca can evoke past or result in new traumatic experiences, which may lead to serious intra- and interpersonal disturbances. There may be spiritual risks, including psychological dependency on achieving spiritual experiences, impacts of a singular unexamined focus on spiritual pursuits, and *spiritual bypass* (term coined by Welwood, 2000) whereby psychological concerns are avoided (Trichter, 2010).

Other factors associated with increased risk include unprofessional and insufficient support provided by ayahuasca practitioners (Gonzalez et al., 2021); boundary violations, including in the form of sexual assault of ceremony participants (e.g., Dobkin de Rios & Rumrill, 2008; Peluso, 2014; Sinclair & Labate, 2019; Trichter, 2010); charlatans and/or untrained, inexperienced, unskilled, or malevolent ceremony leaders (Dobkin de Rios & Rumrill, 2008); and variations in dosing and the brew's chemical composition (Gonzalez et al., 2021; Hamill et al., 2019). As ceremonial ayahuasca use has expanded from the communities from which it originated into the West/Global North, standards, protocols, and ethical guidelines are in need of development and refinement (Trichter, 2010; cf. Church of the Eagle and the Condor [CEC], 2020; 2021; International Center for Ethnobotanical Education, Research, and Service [ICEERS], 2019). The ceremonial ayahuasca setting – including ceremony conditions such as physical space, facilities, and practitioner skill – has also been under-researched (Gómez-Sousa et al., 2021).

Emergency situations related to ayahuasca have been reported as occurring rarely (e.g., Frecska, 2007; Gómez-Sousa et al., 2021). Incidents have included cardiac or respiratory arrest, death (Heise & Brooks, 2017) including by after-ceremony suicide (Loizaga-Velder & Verres, 2014) and suspected pharmaceutical and ayahuasca interaction (Aronovich & Labate, 2021), loss of consciousness and seizure (Heise & Brooks, 2017), and induction of a psychotic episode in an individual with no history

of psychosis (dos Santos & Strassman, 2011). Some emergency events have been characterized as not clearly and directly attributable to ayahuasca, and as therefore warranting further investigation (e.g., dos Santos et al., 2016; Hamill et al., 2019). Others have described certain psychiatric decompensations as ultimately transitory, with subsequent partial or full resolution of symptoms and positive behavioral changes (e.g., Gómez-Sousa et al., 2021).

Amid the surge of literature elucidating the benefits and risks of drinking ayahuasca, few studies have included the perspectives of the individuals who are conducting ayahuasca ceremonies, with a few exceptions (Berlowitz et al., 2018; Callon et al., 2021; Fotiou & Gearin, 2019; Loizaga-Velder & Verres, 2014; Williams et al., 2022). There have been calls to investigate the in-ceremony practices and post-ceremony integration opportunities offered by ayahuasca practitioners to better understand ceremony outcomes and help prevent adverse reactions (Gómez-Sousa et al., 2021). Documenting the perspectives of ayahuasca ceremony leaders on these topics is vital given their experiences of working with ceremony participants, and the education and training in ayahuasca practices that some of them have received in Indigenous and Mestizo communities from which ayahuasca has emerged. As key informants, their voices must be included in scientific works. The present study aimed to explore and describe ayahuasca ceremony leaders' perspectives on several topics relevant to the benefits and risks of drinking ayahuasca including: ceremony conditions believed to contribute to beneficial participant outcomes; contraindications for drinking ayahuasca; additional perceived or potential concerns related to ceremonial ayahuasca use; and psychedelic emergencies.

Method

Participants

Fifteen participants were recruited via purposive, convenience, and snowball sampling through targeted electronic mailing lists and word of mouth. To participate, individuals had to be 18 years of age or older, able to communicate in English, and self-identify as an ayahuasca ceremony leader. Recruitment was closed when adequate variation and information-richness in the data were judged to have been achieved. Demographic variation was sought among participants (e.g., gender identity, age, years of experience as a ceremony leader). Most ($n = 13$) described their process of becoming an ayahuasca practitioner as beginning as a participant in multiple ceremonies, after which they assisted and/or formally apprenticed before progressing to solo- or co-facilitation. None of the participants identified as Indigenous or Mestizo, and the majority were from the West/Global North. Table 1 provides additional demographic information.

Semi-Structured Interview Schedule and Procedure

The semi-structured interview was adapted from a protocol developed by Loizaga-Velder and Verres (2014). Questions were scripted to promote wide-ranging

Table 1
Participant (Ceremony Leader) Demographic Characteristics

Characteristic	n	%
Gender Identity		
Female	6	40.0
Male	8	53.3
Two-spirit	1	6.7
Academic Education ^a		
No post-secondary	2	13.3
Baccalaureate degree	4	26.7
Some college	3	20.0
Professional degree (e.g., engineering, law)	2	13.3
Post-graduate degree in psychology	3	20.0
Alternative healing methods (e.g., traditional Chinese medicine, ayurveda)	4	26.7
Not reported	1	6.7
Ayahwasca Training Lineage ^b		
Shipibo	7	46.7
Mestizo	3	20.0
Yagé	1	6.7
Not reported	5	33.3
Language(s) Spoken ^c		
English	15	100
Spanish	9	60.0
German	2	13.3
Other (Dutch, French, Italian, Jamaican Patois, Portuguese, Thai, or Turkish)	7	46.7

Note. $N = 15$. Leaders ranged in age from 30 to 60 years ($M = 43.47$; $SD = 8.16$). The median number of their years of experience working with ayahuasca ceremonially was 9.75 ($range = 2-20$). Some category totals add to more than 15 and 100% as follows:

^a Some leaders endorsed more than one type of academic education. ^b One leader endorsed having been trained in two ayahuasca lineages. ^c Several leaders spoke more than one language, while they all spoke English.

exploration of leader perspectives on ceremonial ayahuasca use, including their views on general therapeutic potential, facilitative ceremony conditions, and indications and contraindications. The leaders participated in a 90-minute telephone interview and were invited to answer questions based on their personal, training, and ceremony-leading experiences. Interviewers held professional degrees in mental health and had prior experience in mental health and ayahuasca research. Ethics approval was obtained from affiliated institutions: Laurentian University and the University of British Columbia.

Data Analysis

Three approaches to organizing and analyzing the data were employed, reflecting the three content areas of interest and related objectives. First, to formulate a conceptual description of ceremony conditions perceived by the leaders as contributing to favorable ayahuasca experiences for participants, Qualitative Content Analysis (QCA) (Elo & Kyngäs, 2008; Graneheim et al., 2017; Graneheim & Lundman, 2004), an approach from the nursing research literature, was selected. Content analysis emerged in the 19th century as a method for analyzing media (newspaper, magazine articles, advertisements),

political speeches, and hymns (Harwood & Garry, 2003), and has since been employed in a variety of fields including journalism, sociology, psychology, communication, and nursing and health research (Neundorf, 2002). QCA has been applied to various research designs, produced findings that remain close to the data as given, included specific criteria for trustworthiness, and had the aim of “attain[ing] a condensed and broad description of the phenomenon, [with] the outcome of the analysis... concepts or categories describing the phenomenon” (Elo & Kyngäs, 2008, p. 108), all of which supported our purpose of formulating a conceptual description of facilitative ceremony conditions that stayed close to the ceremony leaders’ voices.

Specifically, QCA involves a systematic process of attending to subject, context, and variation between parts of text, and analyzing manifest and/or latent content. Undergirded philosophically by the constructivist-interpretivist paradigm, QCA assumes both co-construction of data (between interviewer and interviewee) and analytic interpretation (between researchers and text). Our exploratory objective suggested a data-driven, inductive QCA approach focusing on the manifest interview content, which resulted in a phenomenological description with low levels of abstraction and interpretation (Graneheim et al., 2017).

All co-authors read the interview transcripts to immerse themselves in the data. Subsequently, co-authors SC, CC, and MW independently coded meaning units (i.e., words, sentences, paragraphs perceived to have related content and context) pertaining to facilitative ceremony conditions. The meaning units were arranged into categories, and inferences were made about patterns perceived among the data (Graneheim & Lundman, 2004). Analytic memos, researcher reflexivity, and regular meetings facilitated the refinement of categories and enhanced trustworthiness. Disagreements were resolved through consultation and clarification. Criteria for trustworthiness were drawn from the QCA literature: *credibility*, *transferability*, *dependability*, *confirmability*, and *authenticity* (Elo et al., 2014; Guba & Lincoln, 1994; Lincoln & Guba, 1985).

Next, to ascertain the leaders’ perceptions of contraindications and concerns (actual, perceived, or potential) related to ayahuasca drinking, a comprehensive re-read of the interviews was conducted by MW, resulting in an exhaustive inventory. Mentions of contraindications were tallied and categorized. To analyze the additional concerns, which had emerged spontaneously during the interviews, meaning units of relevant manifest content were extracted and summarized into short phrases with a low level of interpretation. This list was reviewed and discussed amongst co-authors MW, SC, and AL prior to further refinement and organization via a process of rephrasing items into non-colloquial language for ease of readability, synthesizing similar items, and removing items that were considered non-specific or vague, followed by a fidelity check by MW. Lastly, co-author SC compiled and summarized interview content relevant to psychedelic emergencies. To enhance trustworthiness, these latter processes were also supported by reflexivity practices, memoing, and consultation and clarification among the co-authors.

Results

Below are the findings gleaned from each of the analytic processes. The term “participant” henceforth describes an individual attending an ayahuasca ceremony, whereas the term “leader” refers to the present study’s participants.

Content Analysis of Facilitative Ceremony Conditions

All the leaders expressed hope that individuals attending their ayahuasca ceremonies would have in-ceremony experiences perceived to be beneficial, including intrapsychic engagement (e.g., life review, confronting defenses, ego dissolution, death and rebirth, heart opening); relational engagement (e.g., rebuilding a connection with authentic self, encountering the divine, receiving visions, and engaging with the spirit of ayahuasca); breakthrough and peak experiences; challenging journeys that ultimately facilitated healing; and acceptance of insights. The ceremony conditions believed to facilitate such experiences fell into two major categories: (a) ayahuasca indications, and (b) medicinal setting, with relevant subcategories (see Figure 1). Note that favorable ceremony conditions mentioned by the leaders specific to *participant practices* (e.g., intention-setting, preparatory cleansing, various integration practices) are not included here as they appear in an article by Callon, Williams, and Lafrance (2021).

Ayahuasca Indications

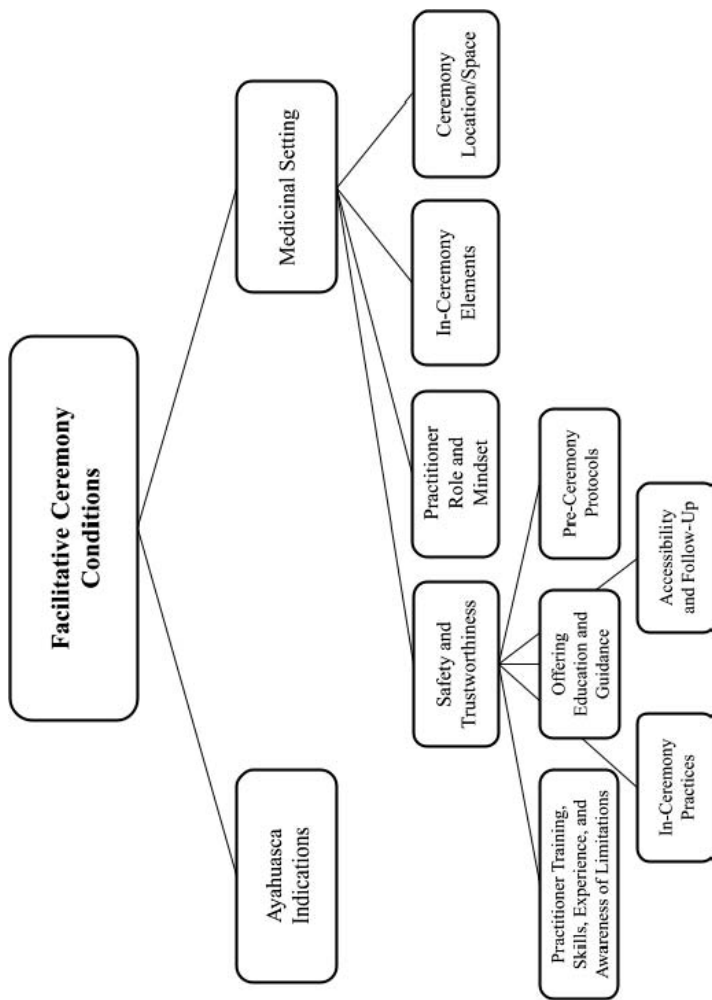
All leaders described symptoms or circumstances for which drinking ayahuasca ceremonially could lead to a salutary outcome. While a few leaders highlighted specific physical or mental health conditions for which ayahuasca could be healing (e.g., rheumatoid arthritis, depression, anxiety, substance use disorder, post-traumatic stress disorder, eating disorders), most focused on participant characteristics that were particularly indicated for drinking ayahuasca (e.g., growth orientation; readiness and willingness). Regarding the former, one leader stated:

Depression is one of the easiest things to heal with ayahuasca... [O]ne-and-a-half years later, these people are still free of depression. They can feel depressed, but they are aware that it’s a temporary situation, and completely... normal to have depressive feelings. (Leader 15)

Regarding indicated participant characteristics, another commented:

You can detect from a person [that] they are really searching [and] need some kind of change in their life, or... connection to their own spirit. That earnest desire, rather than [being] ‘just curious,’ [is] what this is all about... [It’s] got to be self-directed... I never recommend someone drink ayahuasca unless they come to me asking for it. (Leader 12)

Figure 1
Conceptual Map of Ayahuasca Ceremony Leaders' Perceptions of Ceremony Conditions Considered Facilitative of Beneficial Outcomes



Medicinal Setting

All 15 leaders reported that they aimed to provide a context for ceremonial ayahuasca drinking that was maximally beneficial for participants. The following subcategories emerged regarding leaders' beliefs about what elements constitute a medicinal ceremonial ayahuasca setting: safety and trustworthiness; practitioner role and mindset; in-ceremony elements; and ceremony location/space.

Safety and Trustworthiness. Two-thirds of the leaders stated that an ayahuasca ceremony setting should be characterized by safety and trustworthiness, in order that the medicinal benefits of ayahuasca be realized. They expressed that participants stand to benefit most from ayahuasca when they feel comfortable, confident in the practitioners and their assistants, and spiritually, mentally, emotionally, and physically safe. One leader stated:

How safe [participants] feel in the ceremony space is one of the major things [for the therapeutic effects of ayahuasca to take place]... It's a container to reassure the person that they can go deep and be vulnerable and experience these profound states in a safe way. If they don't feel safe, they won't be able to go deep within themselves. (Leader 9)

Several components of establishing safety and trustworthiness were elaborated by the leaders. First, they highlighted the importance of receiving specialized training in Indigenous or Mestizo traditions of ceremonial ayahuasca drinking, gaining as much experience as possible as ceremony assistants and leaders, developing specific skills (e.g., accessing visionary states, guiding and supporting participants through challenging journeys), engaging in ongoing training, and "doing their own [healing] work" with ayahuasca. One leader noted:

Everyone involved needs to be trained specifically in these things... If something is wrong with your heart, you're not going to call the eye doctor... We look at this the same way: just because we are educated in other areas doesn't mean it can apply to plant medicine work. (Leader 14)

Awareness of one's limitations as a facilitator was mentioned by a few leaders as being critical to the provision of safe ayahuasca ceremonies. Appropriate participant selection and ceremony size were cited as examples of translating this into practice.

A second component considered key for establishing safety and building trust was offering orientation, education, and guidance to participants, with a strong focus on ceremony preparation and integration. Orientation topics included: what to expect during the ceremony and the importance of managing expectations; intention-setting; meditation/mindfulness and relaxation practices; understanding the purpose of pre-ceremony dietary and other restrictions, as well as general ceremony/retreat guidelines; techniques to assist participants in helping themselves during ceremonies (e.g., breathwork, surrender, calling for help); and the role and function of purging. One leader stated:

I say to potential participants, “It can be the most blissful experience you’ve ever had, and it can be the most challenging experience of your life. Our work isn’t to alter that in any way, but to hold a safe, loving space for you to have that experience.” (Leader 5)

Integration education included providing specific guidance regarding facilitative practices (e.g., dedicating time to applying ceremony insights into daily life; engaging in creative expression and contemplative practices, connecting with other ceremony-goers), and offering post-ceremony resources such as one-on-one integration sessions, group sharing opportunities, informal gatherings, worksheets for recording insights and emotions, and guided meditations. A leader explained:

I always [tell participants] that... integration is everything, that this experience will mean nothing – less than nothing – if you don’t integrate it... In our closing circles, I always bring up integration. Like, what are the techniques of integration? What has worked? What doesn’t?... I also have an [online] group so that people can talk about any roadblocks and issues they are having around integration. (Leader 4)

Pre-ceremony protocols comprised a third component of trust-building and establishing individual and group safety. Participant screening was described as critical, and as typically occurring via questionnaire and/or consultation with the leader or another team member prior to an individual attending a ceremony. Leaders reported tending to err on the side of caution regarding ceremony inclusion. A leader explained:

We screen very carefully for things like suicide risk, and physical and psychiatric illnesses. What type of support network and stability does this person have in their life? What type of issues with depression and anxiety?... There are many reasons why someone may be excluded [from ceremony participation]. (Leader 8)

According to some leaders, the screening process also serves as an informed consent process for participants. One leader noted:

[The screening process gives] potential participants agency so that they have all the information they need to make an informed decision. I am screening [them, but]... a big part of it is that they are screening the process, me, and this particular venue in which this is being offered. (Leader 5)

Other pre-ceremony protocols intended to promote safety and trust included the leaders communicating various retreat guidelines to participants, and, in one case, measuring participants’ blood pressure. The importance of participant honesty during the screening process was highlighted by many leaders because participants’ withholding of information (e.g., about current or historical medical or mental health conditions) could result in unsafe ceremony conditions.

Fourthly, various within-ceremony practices were viewed as helpful for establishing participant safety and engendering trust. These included

considerations around the ayahuasca brew itself, dosage, and administration; availability of in-ceremony support; risk management and emergency response; and individualized interventions. The quality and type of ayahuasca brew were mentioned by a few leaders, but most leaders highlighted dosage as a key consideration, with the most cited aim being the provision of an individualized, “working dose” to participants. A leader explained:

We call it *mareación*. It’s not over-*mareado* or super-*mareado*, because then it’s a super-overwhelming experience... The goal is that the participant remembers what shows up, remembers the tools [they] can [use to] work with ayahuasca, and can try to go into the depths of their own story and heal... The working dose is so personal. It should be having an effect – something happening, having an experience – but not being ‘gone.’ (Leader 7)

Several leaders noted that the effects of ayahuasca are not strictly dose-dependent, and that participant height and weight were not necessarily reliable indicators for determining an appropriate dose. One leader commented:

[Dosage] really depends on the person. And there’s also reverse tolerance... The more often you do it, the less you need to take. Also, you can do the same dose every single night of a retreat and have completely different levels of intensity each night. It’s not very dose-dependent. (Leader 6)

Leaders also highlighted the importance of offering timely and appropriate in-ceremony support to participants (often delivered by one or more trusted ceremony helpers), responding to challenges, and managing risks/emergencies.

The fifth component described by nearly all the leaders as contributing to safe and trustworthy ceremonies was their accessibility to participants post-retreat, particularly if a participant was struggling. Two-thirds of the leaders reported having an “open door” policy or that they otherwise issued participants an “invitation to reach out,” but that they did not initiate formal follow-up due to lack of resources. The remaining one-third said that they did offer formal follow-up contact (usually via telephone), but that this was not mandatory for participants. One leader commented:

We make ourselves available for calls afterwards if people are struggling. . . [We say,] “If you go home and there’s a problem, or you feel weird, I’m available.”... Some of this is [for a fee]. I think that the whole direct contact thing is really the linchpin [for effective integration]. (Leader 11)

Practitioner Role and Mindset. In this second sub-category of medicinal setting, the leaders identified practitioner role and practitioner mindset as variables that they believed contributed to facilitative ceremonial ayahuasca environments. Role descriptions included “provid[ing] a healing experience” for participants, “bringing in different dynamics to protect the space,” “holding the container for the ceremony,” “listening to the ayahuasca,” “moving energy and cleaning trauma in layers,” balancing the needs of individual participants with the needs of the group, and working to keep their “ego out of the way” so that they could maximally

function as a “vessel” or “tool” through which “ayahuasca does the healing.” One leader elaborated:

My role is to be present for people’s unconscious and do what I can to get people in touch with it consciously... I’m a garbage man. The garbage comes out, and I take the garbage away. [I] start the cleaning process [by] cleaning the trauma from the body, the spirit, and the mind... After 4 or 5 nights, you start to move more into the heart issues and start to clean in there, more of the deeper stuff... trying to open up their senses and reconnect them to Creation. (Leader 1)

Regarding facilitative practitioner mindset, leaders spoke of holding intentions or prayers for participants, for example that participants develop awareness and understanding of their “blockages,” or “to have this person come into their healthiest self.” One leader elaborated:

The basis of [a practitioner’s] work is intention, [which is] expressed in different ways [such as] in the form of chant, [a] silent prayer, [or] a method called *soplado* [a blessing with the breath using tobacco smoke or perfume]... You may not necessarily be praying that the... disorder itself be resolved. You’re going deeper than that. You’re going underneath. You’re going to the motivating factor. (Leader 2)

Another leader stated:

No matter how many people are coming through the door, [and] how many times you get tired of hearing their problems, or even exhausted in your own self from having to receive the energy, [you must] always find a way to cleanse your[self] and return to a space of compassion in your heart, and acknowledge that it’s a divine soul in front of you that you’re being called to serve, and to always treat it like that. Like, you’re handling someone’s porcelain heart. If you accidentally drop it the wrong way, you will just shatter it to pieces. And to just handle them with care. Always. Every single person. (Leader 14)

In-Ceremony Elements. All the leaders identified in-ceremony elements (distinct from in-ceremony practices intended to create a safe and trustworthy setting) considered integral to creating medicinal environments. All 15 endorsed using music, and one-half described incorporating tobacco into their ceremonies. Two-thirds of the leaders reported using *icaros* (generally described as live songs or chants intended to facilitate participants’ healing and wellbeing as well as protection of the ceremony space), while another two-thirds reported using other types of music (e.g., live or recorded, instrumental or vocal, and including gongs, singing bowls, mantras, and humming). A leader remarked:

When [people are] under the influence of ayahuasca, vibrationally everything becomes very sensitive, and a lot of the healing and the movement of the energy of ayahuasca happens through sound... It happens with songs, or chants, or *icaros*, or instruments. It’s really an essential part of the technology of the ceremony, of how things get navigated, and how the healing happens. (Leader 2)

Regarding icaros specifically, another leader stated:

I view the icaros as a technology. The ayahuasca – the entity, the spirit of ayahuasca – comes through the facilitator [and] tells that facilitator what to sing. When that vibration, that sound, goes out to the participants, [it] activates the medicine in their body in a very specific manner to bring forth the healing and teaching that the medicine feels [is] appropriate for [each] individual. (Leader 10)

Using tobacco before or during an ayahuasca ceremony (e.g., blowing smoke on participants, administering rapé snuff) was mentioned by one-half of the leaders as beneficial for participants. A leader explained:

Tobacco is very important for ayahuasca... [and within] Amazonian shamanism. It works alongside ayahuasca to do cleansings and healings. And it helps heal and transmit energy. It helps protect. Tobacco is deeply intertwined with ayahuasca. (Leader 13)

Ceremony Location/Space. Several leaders expressed that the ceremony space and/or location were important factors in establishing an optimal setting for drinking ayahuasca. Descriptors included “peaceful,” “calm,” “quiet,” “gentle,” and “dark.” One leader commented:

There’s too much energy around [in big cities, which can make it challenging]... to keep those energies out... It needs to be quiet. You definitely do not want to be in the heart of a capital or some place where there are hundreds and thousands of people because [of]... that influence. (Leader 15)

The leaders articulated that the range of ceremony conditions described above facilitated a variety of beneficial experiences (i.e., intrapsychic, relational, breakthrough, peak, challenging, and accepting) among ceremony participants, which, in turn, made possible various transformative outcomes from drinking this “powerful” and “dependable” medicine. These outcomes included: increased knowledge and understanding of self and others; enhanced relationships/connection with self and others; increased love and compassion for self and others; making changes in service of one’s wellbeing; increased creativity; increased emotional wellbeing; physical healing; and healing personal and/or ancestral trauma.

Contraindications and Concerns Relevant to Drinking Ayahuasca

To provide a first fulsome survey of potential problems related to ceremonial ayahuasca use, presented here are findings regarding every stated contraindication and actual or potential concern mentioned by the ceremony leaders that they perceived or experienced in some way as relevant to ceremonial ayahuasca use. This section contains, to our knowledge, some items rarely or never before discussed in prior scientific literature. The leaders were asked specifically about ayahuasca contraindications, and five areas were extracted from the data: (a) psychiatric concerns, (b) psychotropic medicines, (c) pre-existing physical health

Table 2
Contraindications for Ayahuasca Use Identified by Ceremony Leaders

Type of Contraindication	Number of Leaders Mentioning
Psychiatric Concerns	
Personal or family history of psychosis	11
Personal or family history of bipolar disorder	6
Unspecified “mental illness,” “mental disease,” or “hospitalizations”	4
Suicidality	3
Narcissistic personality disorder	2
Borderline personality disorder, antisocial personality disorder, or dissociative disorder	1 each
Psychotropic Medications	
Antidepressants (SSRIs, MAOIs)	5
Antipsychotics or lithium	1 each
Pre-existing Physical Health Concerns	
Lack of basic physical strength	4
Severe eating disorder	4
Circulatory conditions (e.g., high or low blood pressure, heart disease, respiratory problems)	3
Diabetes	2
Gastric conditions (e.g., stomach ulcer, throat abrasions)	2
History of seizures	2
Hernia, epilepsy, or extreme fatigue	1 each
Foods, Herbs, Supplements, and Other Plants (i.e., tyramine-containing foods, black tea, onion, garlic, nootropics, ginseng, St. John’s Wort, passionflower, rhodiola, kratom)	2
Participant Behaviors and Characteristics	
Active substance use (drugs, alcohol)	4
Unspecified active “pharmaceutical” or other substance use	4
Non-adherence to ceremony guidelines (e.g., preparatory restrictions, in-ceremony instruction)	4
History of or presenting with aggression, violence	3
Inappropriate intention (e.g., psychonauts)	2
Discomfort with being in a group, negative impact on group, too much unprocessed trauma, “fragile mind,” or “spirit possession”	1 each

concerns, (d) use of food herbs, supplements, and other plants, and (e) participant behaviors and characteristics (see Table 2). Presented in Table 3 is an organized list of more than one hundred additional concerns (i.e., worries, problems, discouraged practices, other noteworthy considerations) voiced by the leaders during the course of the interviews as being relevant to ceremonial ayahuasca use (note that leaders were not asked explicitly to produce this content).

Leaders’ Perceptions of Psychedelic Emergencies

Fourteen leaders provided data regarding psychedelic emergencies, including whether and how often such emergencies occurred, how they responded to them, and whether ceremony participants had experienced decompensation or psychotic episodes. The majority reported that they had observed psychedelic emergencies in the context of ceremonial ayahuasca use. Of these, one-half reported having witnessed one or more psychedelic emergencies as a ceremony facilitator, with the remainder having witnessed emergencies as a ceremony participant or assistant, but not as a facilitator. Emergency situations the leaders had heard

Table 3
Ceremony Leaders' Concerns Regarding Ceremonial Ayahuasca Use

Domain	Perceived Concern
Practitioner	<p>Practitioner's lack of training, skills, and/or experience in ceremonial ayahuasca use can contribute to:</p> <ul style="list-style-type: none"> Limiting beneficial outcomes for participants Overestimating one's abilities, thereby organizing ceremonies with unmanageable participant numbers Provoking unintended in-ceremony trauma responses in participants that persist post-ceremony Failing to adequately assess and monitor participants' in-ceremony experiences Failing to recognize and maintain energetic boundaries Holding biased expectations of process and outcomes (e.g., dramatic ceremonies produce more beneficial outcomes than quiet ones) Using toé as an admixture unskillfully Failing to incorporate key components of ceremonial ayahuasca use (e.g., icaros) Unskillfully managing unhelpful group dynamics during post-ceremony sharing circles <p>Practitioner's lack of integrity, diligence, and/or appropriate motivations can contribute to:</p> <ul style="list-style-type: none"> Offering ayahuasca that has not been checked for strength and quality Using toé as an admixture inappropriately Failing to obtain informed consent from participants regarding brew admixtures Failing to provide a sufficiently safe setting, thereby limiting depth of therapeutic work possible and/or increasing risk of harm Conducting ceremonies nonchalantly and/or primarily to make money Negatively affecting ceremonies due to personal lack of insight, unhealthy lifestyle, "guru syndrome," or inflated ego Engaging in brujería [sorcery/witchcraft] <p>Practitioner's insufficient/inadequate screening can contribute to:</p> <ul style="list-style-type: none"> Failing to identify participants who are less likely to benefit from ceremonial ayahuasca use Failing to identify participants who are more likely to be psychologically or physically harmed from ceremonial ayahuasca use Failing to identify participants who are untrustworthy Failing to identify participants who are physically frail Failing to identify participants who have severe trauma histories Creating conditions in which there are dangerous food or drug interactions with ayahuasca Creating conditions in which participant blood pressure crises (hypo- or hypertensive) occur Creating conditions in which participant electrolyte imbalances occur Creating conditions resulting in participant hospitalization or death Creating conditions that disrupt the entire group/ceremony Creating conditions that can energetically jeopardize the ayahuasca and other plants <p>Practitioner's insufficient education of participants regarding ceremonial ayahuasca use can contribute to:</p> <ul style="list-style-type: none"> Participants experiencing limited beneficial outcomes, or having a non-therapeutic experience Participants failing to knowledgeably navigate difficult experiences arising in ceremony, which can contribute to post-ceremony integration difficulties Participants resisting emotional experiences during ceremony, which can contribute to more difficult in-ceremony experiences Participants misunderstanding the therapeutic rationale and value of purging, and/or pre-/post-ceremony dietary restrictions

Table 3
Continued.

Domain	Perceived Concern
	<p>Practitioner administering too-high dose(s) of ayahuasca can contribute to:</p> <ul style="list-style-type: none"> Increased in-ceremony chaos Participants having a generally non-therapeutic, unproductive, or potentially harmful experience Participants experiencing extreme fear and exiting ceremony or retreat prematurely in a worsened state Participants experiencing drug-induced psychosis Participants experiencing a manic episode Participants experiencing feelings of severe overwhelm or panic, or dissociative behaviors, that result in psychological trauma Participants vomiting too early in ceremony, resulting in therapeutic threshold not being met Participants losing consciousness and/or choking on own vomit Participants experiencing post-ceremony bewilderment and/or amnesia of ceremony experiences <p>A too-low dose can result in therapeutic threshold not being met</p>
	<p>Practitioner's choice of inappropriate physical setting can contribute to:</p> <ul style="list-style-type: none"> Compromising the physical safety of participants, thereby increasing risk of harm (e.g., via falls) Limiting beneficial outcomes due to environmental distractions/noise
	<p>Practitioner's inadequate attention to post-ceremony integration and support can manifest in their:</p> <ul style="list-style-type: none"> Failing to inform participants about the necessity of integration Failing to provide integration tools, or conceptual and practical frameworks and opportunities for integration Failing to appropriately navigate practitioner-participant cultural differences regarding integration meaning-making, due to differing worldviews and customs Failing to offer meaning-making integration interventions that are explicitly participant-centered Failing to provide adequate containment and/or manage problematic group dynamics in post-ceremony sharing circles Limiting participants' integration processes due to large numbers of participants in post-ceremony sharing circles Fostering spiritual bypass among participants Failing to plan for and support vulnerable participants returning to their communities post-ceremony Generally limiting the effectiveness of participants' post-ceremony integration
Participant	<p>Participant mindset and other personal characteristics and behaviors considered unhelpful, risk-increasing, or otherwise problematic include:</p> <ul style="list-style-type: none"> Taking a "psychonaut" approach to ayahuasca Taking an arrogant approach to ayahuasca Being dishonest with practitioner and/or practitioner's team (e.g., failure to disclose substance use during screening process) Lacking motivation, readiness, own volition, and/or appropriate intention with respect to ceremonial ayahuasca use Being unwilling (e.g., to change; to engage in post-ceremony integration) Having unrealistic expectations Experiencing severe anxiety/fear Lacking sufficient ego strength Identifying with "victim role" Resisting in-ceremony experiences Behaving violently towards self or others during ceremony Failing to adhere to preparatory dietary restrictions Attending too few ceremonies (may not receive full benefit, and could also be considered an insincere or unserious approach)

Table 3
Continued.

Domain	Perceived Concern
	<p>Attending ceremonies too frequently (i.e., going “too far, too fast”), which could be overwhelming or retraumatizing for some participants</p> <p>Focusing on number of ceremonies attended instead of integrating and making changes</p>
	<p>Participant behaviors, histories, or pre-existing medical conditions that may result in increased likelihood of unnecessarily challenging ceremonies; longer time to glean benefit from ayahuasca; or risk of harm, include:</p> <p>Incorrect weaning off of contraindicated medications</p> <p>Long term use of pharmaceuticals</p> <p>“Deeper” trauma</p> <p>Having a history of severe trauma paired with current lack of social support</p> <p>Not complying with dietary restrictions regarding contraindicated foods</p> <p>Drinking alcohol or using other substances (e.g., ketamine) prior to ceremonies</p> <p>Use of marijuana specifically close to ceremony/retreat (considered incompatible with ayahuasca, and can make participants’ energy “sticky” and therefore more challenging for practitioner to work with)</p> <p>General physical frailty</p> <p>Underlying cardiac disease or other circulatory conditions</p> <p>Certain gastric conditions (e.g., hernia; esophageal tears)</p> <p>Electrolyte imbalances (e.g., from purging, which can result in deadly arrhythmias)</p>
	<p>Unhelpful or harmful ayahuasca ceremony outcomes for participants can include:</p> <p>Induction of emotional overwhelm, destabilization, fragility, and/or confusion</p> <p>Grandiosity/ego inflation</p> <p>Exacerbation of pre-existing physical (e.g., cardiovascular) or mental (e.g., bipolar disorder) illness</p> <p>Induction of persisting psychosis</p> <p>Provocation of suicidal ideation, attempt, or completion</p> <p>Spiritual and/or emotional bypass</p> <p>Inability to navigate having had their psychological defenses bypassed or disintegrated</p> <p>Life circumstances deterioration</p> <p>Over-reliance on attending ceremonies in lieu of dealing with life’s difficulties</p> <p>Psychological dependency on ayahuasca ceremony attendance (e.g., identity becomes attached to being a ceremony participant) ^a</p> <p>Challenges created by exiting ceremony and/or the retreat early before completion of the experience</p>
	<p>Challenges associated with post-ceremony integration that participants may encounter include:</p> <p>Lacking access to therapist trained in post-ceremony integration and/or with personal ayahuasca experience</p> <p>Increased emotional suffering</p> <p>Attending more ayahuasca ceremonies instead of integrating past ceremony experiences</p> <p>Social isolation (e.g., fear of sharing ayahuasca experiences with others, including their therapist; not connecting post-ceremony with other participants)</p> <p>Returning to an unsupportive environment (e.g., regarding their making choices in service of their health and wellbeing)</p> <p>Having limited financial means to access integration support</p> <p>Serotonin drop resulting in depressed mood, which can inhibit integration</p> <p>Resuming substance use</p>
	<p>Participants who are more likely to struggle without appropriate and/or sufficient integration include:</p> <p>Novice drinkers</p> <p>Those who had mystical, transcendent, or peak experiences</p>

Table 3
Continued.

Domain	Perceived Concern
	Those who re-experienced psychological trauma in ceremony Those whose core issues are left unaddressed, resulting in their engaging in unhealthy behaviors
Other	<p>Concerns regarding ayahuasca use more generally include that:</p> <p>Participants' healing with ayahuasca can plateau after awhile</p> <p>Predicting individual ayahuasca experiences and outcomes is difficult (may range from helpful, to unhelpful, to harmful)</p> <p>Ayahuasca is not indicated for everyone and is not a panacea or "magic bullet," although at times it is presented in these "overly positive" ways and "glorified," when not all participants benefit and some can be harmed^a</p> <p>Acontextual (e.g., "pharmahuasca"), decontextualized (i.e., from ritual/ceremony/ancestral practices), or unguided ayahuasca use can increase risk of harm</p> <p>Drinking ayahuasca can "take people to terrible places" psychologically/can be traumatizing</p> <p>Ayahuasca can be hard on the physical body</p> <p>Combining ayahuasca with other psychoactive substances (i.e., salvia divinorum, LSD, psilocybin) can produce a confusing mix of experiences, and can increase risk of psychological and physical stress, and potential harm.^a</p> <p>Ayahuasca use in Western ceremonial contexts requires more time and support dedicated to formal integration</p> <p>Psycholytic psychotherapy may produce mixed results, including interfering with the therapeutic effects of ayahuasca</p> <p>Ayahuasca tourism in the Amazon has "birthed a lack of integrity" among some practitioners</p> <p>Ayahuasca's unique context and lineage is not being sufficiently acknowledged in the current psychedelic renaissance</p> <p>Limited access to ayahuasca can occur due to:</p> <ul style="list-style-type: none"> Difficulty acquiring the brew (e.g., seizure at customs) Current illegality Time commitment required of participants Participants' lack of financial resources Participants' inability to travel to attend ceremonies

Note. The term "practitioner" in this table refers broadly to individuals who conduct ayahuasca ceremonies, versus the term "ceremony leader" that has been used throughout this article to refer specifically to the participants in the present study.

^a Denotes one of the three most often mentioned concerns; however, their frequency of appearance in the data should not be interpreted as having meaning in terms of generalizability.

about but not personally observed were not included in this summary. Two leaders stated that they had never observed a psychedelic emergency during an ayahuasca ceremony, and a few leaders questioned the validity of the construct of psychedelic emergency as presented to them in the interview and/or offered different interpretations of its meaning. The majority of leaders perceived that psychedelic emergencies occur infrequently (estimates ranged from "less than 0.5%" to "5%" of the time).

Interpretations of Psychedelic Emergency. Approximately one-half of the leaders provided examples of psychedelic emergencies that approximated the description offered to them by the interviewers. These included suicidality and manic or psychotic episodes. One leader noted:

Yes, [psychedelic emergencies] happen. [Participants] have bipolar, or it wasn't really clear that they have [bipolar]. [Or] ayahuasca triggered [a] psychotic episode, because of [too-high a dose]. Sometimes [psychedelic emergencies happen] with people who are not in good mental shape, without us knowing that. (Leader 7)

Another leader commented:

I can think of one woman who, after ceremony, went to the hospital and had a mental break... She had bipolar and didn't tell us... We had [another] guy who felt suicidal. [He] went to the hospital, and, again, had bipolar and a whole history of suicide that he didn't tell us [about]. (Leader 11)

Other leaders characterized psychedelic emergencies more loosely as the participant having become "worse off" in some way due to ceremony participation, including panic attack, "kundalini activation," ego dissolution that persisted after a ceremony, erratic and violent behavior, and transitory mental health deterioration. A leader described having witnessed the following as a ceremony attendee:

There were these two women who clearly... were addicted to drugs... It ended up not going well at all because, biologically, their bodies were so messed up from all kinds of self-destructive behaviors that they were in no condition to receive anything from ayahuasca other than to have deep and profound anxiety attacks. Which is exactly what happened. (Leader 3)

The occurrence of psychedelic emergencies was typically attributed by the leaders to inadequate screening of participants, which could result in a variety of challenging scenarios ranging in degree of severity and risk. A leader recounted:

Once, when I was supporting one of my teachers at a ceremony that he was leading, a [participant] became quite violent and erratic. Apparently, he was on some type of medication that he hadn't disclosed... that had a very negative interaction with the [ayahuasca]. (Leader 8)

A few leaders provided alternative conceptualizations or characterizations of psychedelic emergencies. One leader stated:

Definitely, [psychedelic emergencies occur]. In every ceremony, someone's [processing] trauma. But it's not an emergency for me. You've got to do the job right. But, again, how [participants] integrate it into their life, that's where the challenges come. (Leader 1)

One-half of the leaders viewed psychedelic emergencies as ultimately offering benefit to participants. For example, decompensation and "ego death" were viewed as types of spiritual psychedelic emergencies that were precursors to psychological growth or otherwise integral to a participant's healing process. Noting the importance of post-ceremony support after such experiences, one leader explained:

I follow the . . . philosophy that most people, even when they decompensate or get psychotic, if they have the support, the disintegration can lead to healing and be a positive thing. (Leader 12)

Management of Psychedelic Emergencies. The first strategy for managing psychedelic emergencies described by the leaders was preventative, consisting of effective screening and subsequent decision-making about participation (e.g., obtaining emergency contact information at intake; declining to offer ayahuasca ceremonies to participants of concern; offering a very small dose; permitting a participant to attend a ceremony without drinking ayahuasca). Within-ceremony interventions for psychedelic emergencies focused on keeping participants as grounded as possible. These included offering supplementary shamanic or other techniques such as chanting a personal icaro to the participant or blowing tobacco smoke on them; “energetically removing” some of the medicine from the participant; “bringing in the energy” of additional medicinal plants; offering grounding interventions using scents; offering appropriate calming touch; “holding space” for the participant to navigate the experience; and/or, if necessary, calling emergency responders. A leader explained:

We work with different plants, [and] with different techniques on people’s bodies to help calm them down. . . . A lot of the [time]. . . we just hold space for them. Because. . . when they are in that space, even though it presents as being an emergency and really difficult, it can also be the grounds for deep healing and a deep encounter with something that’s important for them to work through. (Leader 2)

Another commented:

There is an emergency protocol in place. . . . If emergency responders need to be called, they will be called. And that really comes with someone who is a danger to themselves or others. . . . If there is a danger, we need to deal with that. (Leader 5)

In the hours following a psychedelic emergency, interventions were reportedly offered by the leaders to the affected participant such as integration facilitation; grounding techniques (e.g., meditation, yoga); tending to basic needs (food and comfort); involving family as appropriate; referring the participant to a psychiatrist and/or psychotherapist; or recommending that a participant not drink ayahuasca again. Finally, it was noted that, in some cases, practitioners may not be able to adequately help a participant who was experiencing a psychedelic emergency. A leader remarked:

In certain situations, there is not really anything you can do. [The participant] becomes paranoid, and then they don’t trust you, and they don’t want help. (Leader 13)

Discussion

This qualitative investigation aimed to incorporate the perspectives of ayahuasca ceremony leaders into the growing body of literature addressing the potential

benefits and risks associated with ceremonial ayahuasca use. The leaders' beliefs regarding facilitative ceremony conditions suggest that they viewed their responsibilities to help maximize participant benefit and minimize harm as myriad, including knowledge, skills, mindsets, and practices employed before, during, and/or after ceremony delivery. These findings are generally consistent with prior literature regarding the importance for participants of *set and setting* in the context of the therapeutic use of psychedelics (e.g., Grof, 1970; Haijen et al., 2018; Hartogsohn, 2017, 2020; Leary et al., 1963; Metzner & Leary, 1967), and extend these findings to highlight the important role of ayahuasca ceremony leaders in establishing these. Also relevant to *set and setting*, a substantial list of ceremony leader characteristics and behaviors considered to be of concern emerged from the interviews. Although the interviewed leaders were not asked how they navigated potential problems related to their own behaviors and characteristics (e.g., their personal limitations, biases, blind spots, and counter-transferential reactions), the practitioner-related concerns they identified suggest that practitioner self-reflection and -awareness may be key for establishing safe and beneficial ceremony settings, and that opportunities for ayahuasca ceremony leaders to regularly consult and receive supervision may be helpful in stimulating reflexivity.

A number of contraindications for drinking ayahuasca were described by the leaders, some of which aligned with extant literature (e.g., SSRIs; history of psychosis, bipolar disorders) (e.g., Loizaga-Velder & Verres, 2014; Ruffell et al., 2020), and others that seemed novel (e.g., antisocial personality disorder; spirit possession). The multitude of additional concerns expressed by the leaders encompassed practitioner-related (e.g., lack of training and/or experience, problematic personal characteristics and practices), participant-related (e.g., experiencing particular challenges before, during, or after ceremony participation; personal characteristics and/or behaviors), and more general issues (e.g., decontextualized use of ayahuasca; access issues), as well as other concerns related to aspects of ayahuasca use (e.g., sorcery; see Aronovich & Labate, 2021) that may be “less digestible” (Fotiou, 2016, p. 165). This is the first study to our knowledge that has exclusively sampled and elicited the perspectives of individuals who are delivering ayahuasca ceremonies regarding these topics – addressing a significant gap in the literature – and our findings align with research and other scholarship indicating that drinking ayahuasca should not be undertaken lightly (e.g., Hamill et al., 2019; Gonzalez et al., 2021). Many of the noted concerns may also be relevant to consider for the application of psychedelic medicine more broadly.

Statements about interpersonal boundary violations occurring in the context of ceremonial ayahuasca use were not prevalent among the leaders, a surprising finding given that this is a topic of serious and ongoing concern (e.g., Peluso et al., 2020). One leader mentioned “sex, power, and money stuff,” and another remarked that some ceremony contexts can be “predatory,” problems previously noted by Dobkin de Rios and Rumrill (2008). Although we judged these statements as too nonspecific to be included on the concerns list, they are nonetheless worthy of mention. The interview protocol did not include specific questions about abuses occurring during or otherwise in proximity to ceremonies, which may have

contributed to the scant data regarding boundary violations. Leader reluctance to discuss this charged topic may also have been a factor.

Regarding psychedelic emergencies, consistent with other scientific reports, the leaders reported that various of these (e.g., induction of suicidality; problematic medication interactions with ayahuasca) do occur at ayahuasca ceremonies albeit infrequently (e.g., dos Santos et al., 2017; Loizaga-Velder & Verres, 2014). Some leaders elaborated their observations of psychedelic emergencies in apparent agreement with the interviewer prompts, whereas others questioned or reframed the construct as the experience of an intense and unpleasant but non-emergency challenge that, for some participants, may occur during or as a result of ayahuasca ceremonies, and that ultimately has the potential to be very healing. These findings are consistent with prior literature construing “spiritual emergencies” or “transpersonal crises” as “difficult stages in a natural developmental process” (Grof & Grof, 2017, p. 30), as well as literature differentiating psychedelic *emergency* from psychedelic *emergence* that attributes the distinction to several factors including the individual’s preparation, preexisting functioning, conceptual framework for understanding the experience, and ability to integrate it (e.g., Bragdon, 1993; Grof, 2001). Hall (1986) has posited that many symptoms of emergence may resemble psychiatric or medical conditions; with sufficient non-pathologizing support, there may be greater likelihood of a positive outcome (e.g., Bragdon, 1990; Perry, 1986).

Together, the present study’s findings suggest that insufficient screening, preparation, orientation, monitoring, and/or integration opportunities could lead to some ceremony participants failing to glean full benefit from their ayahuasca experiences, or, more concerning, becoming worse off as a result of drinking ayahuasca. It may be particularly important for novice drinkers that ceremony leaders and their helpers establish facilitative conditions and prevent or mitigate ceremony-associated problems, as these participants are likely to be among the most vulnerable due to their lack of knowledge and experience with ceremonial ayahuasca use. Novice participants’ inexperience may lead them to misunderstand, minimize, and/or fail to engage appropriately in certain safety-promoting behaviors (e.g., disclosing important health or mental health information, undertaking dietary preparations and intention-setting, respecting in-ceremony guidelines), which could increase the risk of harm. As alluded to by one of the interviewed leaders, Western ayahuasca ceremony contexts may require more structured and formalized attention to ensuring that facilitative ceremony conditions are established, versus in Indigenous and Mestizo ceremony settings wherein the community itself is the container (Callon et al., 2021; Trichter, 2010) within which ceremonial ayahuasca use is considered a complete medical system (Gonzalez et al., 2021).

The present findings may aid individuals who are considering (or already) drinking ayahuasca in weighing the potential benefits and harms of ceremonial ayahuasca use, thereby facilitating informed consent. Clinicians can also use the findings to enhance their knowledge of ceremonial ayahuasca use and therefore their ability to support their clients pre- and post-ayahuasca drinking. Furthermore, the findings add to emerging literature regarding developing best practices for ceremonial ayahuasca use in Western contexts and/or with Western participants (e.g., Church

of the Eagle and the Condor, 2020; 2021; International Center for Ethnobotanical Education, Research, and Service, 2019; Ray & Lassiter, 2016; Trichter, 2010). Given that ayahuasca is designated as a controlled substance in many parts of the Western world, one unfortunate byproduct of this status could be that ceremony leaders are less likely to publicly disclose challenging or unsafe ceremony situations, which may limit mutual support, knowledge generation, and the development of comprehensive best practices protocols regarding these important topics. Importantly, the present findings point to the utility of involving ayahuasca ceremony practitioners in research, and of practitioner-scientist collaborations, to inform these efforts. In particular, the large number of potential concerns noted by the leaders in this study, some of which, to our knowledge, had not been previously identified, supports this recommendation.

We strongly emphasize the preliminary nature of these results. The limitations of this study are consistent with the knowledge claims of constructivist-interpretivist qualitative research, including faithfully representing participant contributions, obtaining sufficient and quality data from a few diverse individuals, and depth and breadth of understanding gleaned (Levitt et al., 2017). Limitations include: (a) the modest sample size was based mainly on convenience sampling and is therefore not representative, (b) the leaders were not asked explicitly about concerns related to ayahuasca use other than contraindications, which may have limited the specificity, depth, and breadth of these data, (c) the leaders may have limited their disclosures regarding certain concerns (e.g., psychedelic emergencies and/or boundary violations), resulting in the exclusion of relevant data, (d) sole reliance on one data source (interviews) likely limited the “thick description” sought in most qualitative inquiry (Geertz, 1994), and (e) the conversational fluency in English requirement limited sample representation in terms of the cultures and diversity of ayahuasca practices. Indigenous and Mestizo perspectives were not captured in this study. Since the majority of the interviewed leaders were Westerners who had trained in Indigenous or Mestizo communities, their data are likely to have been influenced by both contexts to differing degrees depending upon the individual. Given the continued expansion of ayahuasca in the West/Global North, Trichter (2010) has posited the necessity of integrating Indigenous ayahuasca practices with “contemporary Western concepts of psychological health and ethical conduct” (p. 131). Therefore, Western ceremony leaders who have trained within Indigenous or Mestizo Amazonian communities, such as those interviewed for this study, may be well positioned to help bridge ontological, epistemic, and practical gaps in translation regarding the ceremonial use of ayahuasca in Western contexts, ideally in a decolonizing and bidirectional manner (Ona et al., 2022).

For a more comprehensive understanding of the benefits and potential risks of ayahuasca, including set and setting-related factors, future qualitative research should invite the perspectives of a larger sample inclusive of Indigenous and Mestizo ayahuasca practitioners. It may be useful to investigate in more depth some of the specific concerns relating to aspects of ayahuasca use identified by the leaders interviewed for this study. The adaptation of ayahuasca ritual practices to Western contexts is ongoing; therefore, research that addresses and helps inform aspects of regulation and professionalization is needed (Labate &

Jungaberle, 2011; Trichter, 2010). In addition, it may be useful to explore what may be the emergence of a hybrid acculturation process for Indigenous- or Mestizo-trained Western ayahuasca ceremony leaders and any bi-directional effects on culture and practice. Future research should include efforts to identify best practices for participant screening, and further delineate and study the concepts of psychedelic emergency versus emergence, especially over the long-term and from the perspectives of the individuals experiencing the emergency/emergence and their families. Finally, longitudinal observational research on individuals participating in ayahuasca ceremonies could help illuminate some of the longer-term outcomes and implications of the present findings.

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