



An exploratory study of experiences with conventional eating disorder treatment and ceremonial ayahuasca for the healing of eating disorders

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Abstract

Purpose Ayahuasca is a traditional Amazonian medicine that is currently being researched for its potential in treating a variety of mental disorders. This article reports on exploratory qualitative research relating to participant experiences with ceremonial ayahuasca drinking and conventional treatment for eating disorders (EDs). It also explores the potential for ayahuasca as an adjunctive ED treatment.

Methods Thirteen individuals previously diagnosed with an ED participated in a semi-structured interview contrasting their experiences with conventional ED treatment with experiences from ceremonial ayahuasca. The interviews were analyzed using thematic analysis.

Results Participant reports were organized with key themes including that ayahuasca: led to rapid reductions in ED thoughts and symptoms; allowed for the healing of the perceived root of the ED; helped to process painful feelings and memories; supported the internalization of greater self-love and self-acceptance; and catalyzed spiritual elements of healing.

Conclusions The results suggest that ayahuasca may have potential as a valuable therapeutic tool, and further research—including carefully controlled clinical trials—is warranted.

Level of evidence Level V, qualitative descriptive study.

Keywords Eating disorder · Psychotherapy · Ayahuasca · Adjunctive treatment · Psychedelics · Traditional medicine

Introduction

Eating disorders (EDs) are serious mental disorders that negatively affect individuals at the neurobiological, cognitive, emotional, physical and social level [1]. This class of disorders is often comorbid with mood, anxiety, and

substance use disorders, with anorexia nervosa having the highest mortality rates of all the psychiatric disorders [2]. Although there have been significant advances in the field of ED treatment, outcomes are modest, while relapse and treatment drop-out rates remain high [3]. The many obstacles to recovery highlight the continued need for treatment refinement, as well as the consideration and exploration of novel approaches for treating EDs [4]. As EDs are now a global phenomenon, there has also been a call to ED researchers and clinicians to look beyond Western-based therapeutic modalities and explore treatment alternatives from across cultures [5]. In this vein, a preliminary qualitative study [6] reported positive outcomes in individuals with EDs who explored the use of a traditional Amazonian plant medicine commonly known as ayahuasca.

Ayahuasca

Ayahuasca is a psychoactive brew originating from the Amazon basin. It is used in rituals by indigenous leaders

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and as part of religious ceremonies in a few Brazilian-based syncretic churches. In the last 25 years, there has been a surge of interest in ayahuasca as a psychotherapeutic and spiritual tool. Its use has spread from these traditional South American communities throughout North America, Europe and other parts of the world [7]. Ayahuasca, is prepared by boiling the woody bark of the vine *Banisteriopsis caapi* in combination most commonly with the leaves of *Psychotria viridis*. The *B. caapi* vine contains high concentrations of beta-carboline alkaloids, which function as short-acting reversible monoamine oxidase inhibitors, while the hallucinogenic component *N,N*-dimethyltryptamine (DMT) is found in the leaves of *P. viridis*. This combination when ingested orally induces changes in perception and cognition, such as vivid visual and auditory sensations, new-found insights, memory recall, strong emotions, bodily sensations, and spiritual and transpersonal experiences [8]. DMT is Schedule I substance under the 1971 Convention on Psychotropic Substances, which severely limits access to ayahuasca for scientific investigation in most countries, including Canada and the United States. Ayahuasca is traditionally drunk in the context of a shaman-guided group ceremony. Typically, the shaman individually administers the ayahuasca in the form of a tea and once ingested, the individual participants engage in silent meditation for the duration of the ritual. The ceremony lasts approximately 5 hours, during which time the individual may experience nausea, purging (vomiting, diarrhea, crying, yawning, sweating, shaking), and altered states of consciousness [9].

Psychedelics, including LSD, MDMA, psilocybin, and ayahuasca have made a recent resurgence in research as potential therapeutic tools in the field of mental illness [10] including mood, affective and substance use disorders and as of most recently EDs [6, 11–14]. Unlike other categories of illicit drugs, classic psychedelics—which includes DMT, a primary psychoactive component of ayahuasca—do not tend to lead to chronic-dependent patterns of use characteristic of addiction [15]. In terms of physical toxicity, psychedelic drugs, including ayahuasca, are less harmful than many other pharmaceutical medications or street drugs [16], and the overall health risks for typical doses of ayahuasca consumed by healthy individuals have been assessed as negligible [17]. Further, new research suggests that when used with therapeutic or spiritual intention under the guidance of a clinician or experienced ceremonial leader, these types of substances have the potential not only to be used safely, but in some cases to catalyze “quantum change” for patients—i.e., rapid and sustained resolution of symptoms for some mental disorders and addictions [18–20]. While some have suggested a strong element of placebo effect may account for some of the therapeutic effects of psychedelics, this may not necessarily militate against the successes that can be realized through their careful and circumspect use [21].

With respect to EDs, individuals with a history of both the illness and ceremonial ayahuasca drinking reported the reduction or cessation of ED symptomology and other comorbid symptoms, increased emotion processing and regulation, and greater self-love [6]. Some of the particular physical health compromises that individuals with EDs may experience (e.g., cardiovascular or gastrointestinal issues) highlight a need for significant precautions in drinking ayahuasca, which has not been studied clinically to assess safety risks specifically for ED sub-populations. Although some challenges and risks were acknowledged by participants [6]—and hypothetical explanatory mechanisms for ayahuasca’s potential therapeutic effects are as yet unclear [22]—these preliminary findings suggest a holistic model of healing that warrants further research. In particular, new neuroscience research indicating that alkaloids in ayahuasca and other psychedelic compounds can stimulate neurogenesis and synaptogenesis provides an impetus for this line of inquiry [23, 24]. As such, this exploratory study serves to report on the perspectives of participants with experience with both ceremonial ayahuasca drinking and conventional ED treatments. The results will be utilized to gain a deeper understanding of the potential for ayahuasca as a healing modality, as well as support the exploration of future investigations.

Methods

Recruitment and participants

A purposive sample of participants were recruited via word of mouth, social media, on-line discussion group advertisements, targeted listservs and a project website. Twenty-one participants were initially interviewed. Of these 21 participants, one participant did not participate in ceremonial ayahuasca use (rather she used DMT) and thus her transcript was excluded from ongoing study. Of the remaining 20 participants, six participants did not report participation in conventional therapies and one participant reported involvement in healing practices but not specific to ED treatment. She was also unable to provide sufficient detail to confirm a psychiatric diagnosis. Thus, 13 participants remained who met the following criteria for inclusion in this study: (1) diagnosis of an ED by a qualified professional (2) engagement in conventional ED treatments in North America and (3) participation in at least one ayahuasca ceremony. The majority of the participants ($n = 12$) engaged in conventional ED treatment prior to their experiences with ayahuasca and one participant had experienced ayahuasca alongside conventional ED treatment.

The final sample included 13 participants (12 women) with a mean age of 30.1 (range 21–49) and an onset of ED

symptomology at a mean age of 14.3 years (range 8–24). Participants had been diagnosed with anorexia nervosa ($n=8$) and bulimia nervosa ($n=5$) by a general practitioner ($n=5$), specialized eating disorder team ($n=2$), psychologist ($n=1$), psychiatrist ($n=4$) or pediatrician ($n=1$).

The ED treatment settings included outpatient ($n=12$), inpatient hospital ($n=5$), residential programs ($n=2$) and a clinical trial ($n=1$). Various psychotherapeutic modalities were reported and included cognitive behavioral therapy [25] ($n=8$), dialectical behavior therapy [26] ($n=3$), family based treatment [27] ($n=1$), and acceptance and commitment therapy [28] ($n=2$). Participants attended a range of ayahuasca ceremonies in their lifetime (1–30) that were held in a group setting and guided by a trained ceremonial leader (e.g., shaman or *curandero vegetalista*). Most participants participated in multi-day retreats and all ceremonies were rooted in Amazonian traditions (e.g., Shipibo or Ashaninka). The elapsed time between the most recent ayahuasca ceremony and the interview date ranged from: one month or less ($n=5$), 1–12 months ($n=5$), and 1–3 years ($n=3$).

Semi-structured interview schedule and procedure

A semi-structured interview schedule was developed based on a similar study investigating ayahuasca drinking and the treatment of substance use disorders [11] and the Ayahuasca Treatment and Outcome Project (B. Rush, 2015, personal communication). For the purpose of this study, the questions analyzed related to participants' ED-relevant etiological, clinical and treatment histories, subjective evaluations and perceived effectiveness of previous conventional ED-focused therapies, and ceremonial ayahuasca drinking.

Ethical approval of the study was granted by Laurentian University and the University of British Columbia. Semi-structured interviews were conducted via telephone. The mean interview time was approximately 120 min (range 68–192 min).

Qualitative analysis

Thematic analysis [29] was employed to identify patterns within the data set regarding participant perceptions with respect to ayahuasca experiences and conventional ED treatment for the healing of an ED.¹ Investigator triangulation was also utilized in that two researchers independently coded the interviews and organized the potential themes independently. In this study, a theme was defined as a pattern if it

occurred for at least six of the 13 participants. Inter-coder reliability was calculated using the average percent agreement between the two coders using an agreement threshold of 80 percent. The two-member team reviewed and discussed themes that did not meet the agreement threshold to arrive at a consensus on the final themes. To ensure that the emergent themes accurately reflected the participants' experiences, member checks were conducted.

Results

Thematic analysis: Ayahuasca as a therapy

From the thematic analysis of the 13 interviews, five central themes were identified. Specifically, participants reported that healing from an ED with ayahuasca differed from their experiences with conventional ED treatment, and that for them, ayahuasca; (1) was more effective (2) allowed for deeper healing (3) allowed for the processing of intense emotions and/or memories, (4) provided lessons in and discoveries of love, self-love and self-care, and (5) provided a spiritual component to healing and recovery.

Theme 1: Ayahuasca is an effective form of healing from an ED

Experiences with ayahuasca were described as effective in ED symptom reduction and helpful in overall recovery. One participant experienced feeling stuck in her recovery, and only after her experiences with ayahuasca did she encounter greater transformations in healing from her ED:

I feel like traditional therapy methods didn't work very well on me. ... I just thought I'd have to suffer with it for the rest of my life and, ayahuasca has definitely changed some huge, big chunks of it. (P-E)

She went on to add that had she known about ayahuasca earlier, she may have suffered far less: "If I'd known there was a way to make certain symptoms just go away, I would have done it like, 20 years ago." One participant (L) reported that her experiences with ceremonial ayahuasca resulted in remission from her ED: "I would say that in the time since ayahuasca, I haven't struggled [with ED symptoms]." For other participants, ceremonial ayahuasca not only had a profound impact on reducing or eliminating ED symptoms, but they also perceived ayahuasca to work more efficiently than conventional ED treatment. As one participant stated: "I've heard sitting with ayahuasca is like having 10 years of psychotherapy. I just think it's fully different, I don't think you could get to that same place even in 10 years of talking with someone." (P-B).

¹ Analyses were first conducted separately according to diagnosis (anorexia nervosa vs bulimia nervosa); however, minimal differences emerged after the first round of analysis by three raters. As such, the analyses were completed with the total sample.

Theme 2: Ayahuasca allows for deep healing

Participants perceived that ceremonial ayahuasca drinking provided a more profound understanding of their ED. One participant who had recently completed ED treatment at a specialized residential ED program noted that a single ayahuasca ceremony allowed her to access a deeper level of awareness in terms of the root of her ED. She further explained that this newly gained insight helped her to focus on the next steps needed for her recovery: “But I think it’s just a deeper recovery. It just goes deeper, it gets to the root of why it developed in the first place, and the things you really need to work on to get better.” (P-K).

Another participant, a physician, described ayahuasca’s deep processing by commenting on the perceived mechanisms of action of ayahuasca and her experience with conventional ED treatment:

Standard approaches—I guess to summarize—are very top-down. ... like suppressing symptoms so that you can become functional, whereas the work with the medicine [ayahuasca]. ... is more of a bottom up approach that is very much really rewiring things, it’s getting to the root cause and bringing in what was missing and resolving it on a deep, deep level that doesn’t I don’t think really get fully explored or touched upon in standard approaches. (P-F)

Theme 3: Ayahuasca allows for the processing of intense emotions and/or memories

Participants described ayahuasca as a means by which they were able to access and process unresolved emotions such as grief and shame. One participant shared an experience with ceremonial ayahuasca as emotionally painful but, unlike any other treatment method, it allowed her the opportunity to release these emotions:

I had a really, really tough experience but I’m so grateful because I feel 10 times lighter. And that doesn’t have to do with just my body image, it’s emotionally, it’s like that stuff that I couldn’t get to. ... that I can’t touch with other methods. (P-C)

Furthermore, participants noted that ayahuasca helped resolve emotions associated with painful memories. One participant shared an experience in ceremony where she was able to identify and resolve a longstanding pattern of intergenerational shame:

The ayahuasca ceremonies, they’re revealing and healing in the moment. It’s so hard to explain, but for example, one whole entire ceremony was starting from basically conception to now, about all the moments that shame has entered my life. I would see it with my

mother and my grandmother and then in that moment, we would heal it together. (P-L)

Lastly, some participants revealed that unlike conventional ED treatment, once ayahuasca was ingested, the experience that followed was not one that they could avoid or cease. This was perceived to be a positive, albeit challenging feature of this medicine work as described by participant E:

I mean with ayahuasca during ceremony you can’t go anywhere, you can’t hide from it, and I think that is, I mean for me, it was like one of the first times where I just sat, in fear or sat in sadness, or sat in memories that I was trying to hide from.

Theme 4: Ayahuasca allows for the embodiment of love, self-love and self-care

Several participants reported that ayahuasca provided them with profound lessons of love, self-love and self-care. A participant who struggled with her self-worth found that the use of positive affirmations received in therapy did not lead to the expected changes in her negative self-evaluation. Instead, her experiences with ceremonial ayahuasca provided her with an unyielding belief that she is loved and lovable:

There are some insights that can never be shaken from me. I used to try to tell myself that like “Oh people love me” and then when I actually got it in my heart, that’s what ayahuasca would do is move things from your brain to your heart so that they became convictions within you that no one could ever shake from you. (P-M)

For participant I, experiences with ayahuasca provided her with teachings of self-care. She described newfound insight into her own inner strength, which allowed her to identify and implement life choices that fostered a greater sense of well-being:

It showed me that I had greater choice, that I had the ability to choose to live differently in a way that I had never seen before, or thought of, or experienced before in any other form of therapy.

Theme 5: Ayahuasca provides a spiritual component to healing/recovery

Another distinction made between ayahuasca and conventional ED treatment related to the role of spirituality. Participants stated that ayahuasca provided spiritual healing, an approach to recovery perceived to be missing from conventional ED treatment in which they participated. Participant I shared; “The medicine [ayahuasca] worked with my body, and my soul, my spirit on a deeper level than any

other doctor ever could have.” She further supported this theme by adding; “It [ayahuasca] offers a form of spiritual and existential introspection and a form of physical healing that is unlike anything else that I’ve experienced.”

In addition, other participants expressed embodying a connection with a greater spiritual force such as God, a greater intelligence or nature. This newfound connection or access to additional resources for healing was a source of great comfort. As participant G simply stated; “Ayahuasca for healing eating disorders could help in my case with being able to trust some greater force.”

Additional theme: Bridging ayahuasca with modern psychotherapy

An additional theme that emerged throughout the participant interviews related to bridging the use of ayahuasca with conventional psychotherapy. Half of the participants recommended that ceremonial ayahuasca drinking should (1) include access to conventional psychotherapeutic support, and/or (2) incorporate strengths of conventional ED treatment approaches (e.g., focus on re-nourishment). Participant C, a life coach stressed the importance of formal therapeutic support for integration of the deep work facilitated by ayahuasca when taken outside of traditional indigenous settings. Additionally, participants spoke to the real or potential benefit of including conventional psychotherapeutic support alongside ayahuasca drinking. One participant shared that her weekly ED support group sessions helped provide her with a contextual bridge to her ayahuasca experiences:

I am currently in an eating disorder support group once a week, so that helps. I can’t really talk about my [ayahuasca] experiences there, but it does just help to kind of connect it to the eating disorder behavior and thought process around that. (P-B)

Lastly, participant G highlighted the importance of nutritional rehabilitation, a process supported by conventional ED treatment programs. Her suggestion to incorporate a refeeding component to the ayahuasca ceremonies, could provide a more comprehensive healing process: “Ayahuasca has a lot of potential but it needs the support of, I think there’s a piece of the refeeding that’s important that the Western hospital does.”

Discussion

EDs are exceptionally challenging to treat and innovative adjuncts to conventional treatment must be explored [30]. As such, this exploratory study examined the perspectives of individuals with experience within conventional ED treatment programs and who participated in ceremonial

ayahuasca drinking. Analysis of participants’ perspectives revealed several key themes. In contrast to conventional ED treatments, participant experiences with ayahuasca were characterized as leading to greater improvements in the reduction or discontinuation of ED symptoms. This finding is notable inasmuch as the reduction or cessation of behavioral symptomology such as restricting, bingeing and purging is a hallmark of the ED recovery process [3]. Furthermore, our participants expressed that their experiences with ceremonial ayahuasca were perceived to generate more efficient changes with respect to their ED symptomology. The protracted course of the illness and its subsequent effect on quality of life [31] highlights the limited therapeutic efficiency by current ED interventions for some and illustrates the need for approaches that have the potential to produce holistic and lasting therapeutic outcomes.

Many of the participants in this study reported that their experiences with ayahuasca provided awareness and understanding of the roots of their ED. The reporting of this phenomenon is not new within the ayahuasca literature. Researchers in the field have suggested that ayahuasca may help to heal by bringing to the surface memories and emotions in need of processing, as well as providing insight and perspective into unhealthy behaviors [22]. Similarly, participants in this study also reported that ceremonial ayahuasca drinking allowed for the processing of emotion in a way they felt was deeper than what they experienced in the context of conventional ED treatment. Consistent with this finding, ayahuasca drinking has been reported to trigger painful memories and their associated emotions, followed by a process of productive reprocessing and restructuring [32]. We believe this finding is particularly important given that emotions are known to play a central role in the development and maintenance of the disorder [33]. Specifically, ED symptoms are regarded as a vehicle to help soothe and regulate difficult emotional processes. That ceremonial ayahuasca drinking is reported by some to facilitate such deep healing in this domain, and in those who struggled to achieve the same in the context of conventional ED therapies, is another reason for the field to consider further research into this potential adjunct to treatment.

Participants in this study also described that experiences with ayahuasca differed from conventional ED treatment in that they provided them with a greater capacity to embody self-love in thought, feeling and action. Many individuals with EDs struggle with negative evaluation of their self-worth and often engage in harsh self-criticism and harmful behaviors [34]. Appropriately, several therapeutic ED interventions have embraced an approach that focuses on nurturing self-compassion as well as transforming the self-loathing internal dialogue [35, 36]. As such, it is encouraging that, like our participants, individuals who have participated in ayahuasca ceremonies elsewhere spoke to

a self-transformation where they viewed and treated themselves with more love and care [37]. By making room for self-love, individuals with an ED may have access to additional internal resources to then transform their patterns of destructive thinking and behavior and instead attend to and heal the devalued parts of the self.

Lastly, for many participants, ayahuasca helped facilitate spiritual healing, a perceived mechanism of transformation that perhaps differentiated most distinctly the experiences of participants in the context of ceremonial ayahuasca from conventional ED treatment. These findings are in line with those of recent clinical studies on psilocybin, which has been observed to elicit powerful spiritual experiences for some subjects. Furthermore, at a 14-month follow-up, participants rated their experience as having substantial personal meaning and spiritual significance and attributed to the experience sustained positive changes in attitudes and behavior [38]. As it relates to EDs specifically, higher levels of spirituality have been shown to be associated with lower levels of ED symptomology [39]. This body of research, in combination with our participants' testimonials, suggest that by nurturing spiritual growth, a connection to something greater than the self can be fostered and in turn lead to improved mental health outcomes. The abovementioned findings also reinforce the need for the ED field to consider a larger role for spirituality and spiritual practices in the context of treatment models and programs more generally.

Finally, although participants contrasted their experiences with ayahuasca and established ED treatments, we do not believe that ayahuasca drinking should be considered outside of or exclusive to conventional treatment modalities. Many of our informants held the same opinion. Conventional therapy models are effective for many and we would advocate for a more formal exploration of an integrative approach that includes both traditional indigenous healing practices such as ceremonial ayahuasca drinking, as well as the extensive theoretical and clinical knowledge that has emerged from the conventional approach to the treatment of EDs.

Future research and clinical implications

Ayahuasca—as with other substances in the class of psychedelic drugs—is unlike many other medications used in the treatment of eating disorders and other mental disorders (e.g., SSRI antidepressants, atypical anti-psychotics), which are typically prescribed for ongoing daily consumption to help manage symptoms. Rather, a proposed clinical research program involving ayahuasca in the treatment of eating disorders would involve its use as a short-term or sporadic pharmacological adjunct to a conventional ED treatment regimen, including medical monitoring, psychotherapy and nutrition support. This proposed protocol would be similar to the study of MDMA-psychotherapy for

treatment-resistant PTSD, which showed that 1-year post-treatment (three psychotherapy-assisted MDMA sessions), 76% of participants no longer met criteria for PTSD [40]. Similarly, given that ayahuasca is capable of transforming core maladaptive emotional processes (among other healing mechanisms), ED symptoms (e.g., bingeing, purging) become less necessary for coping with stress and distress, and ongoing ayahuasca drinking becomes unnecessary. However, as for many patients the trajectory towards ED recovery is a longer-term process, using it in conjunction with conventional treatments and supports would be advisable for any initial clinical study applications.

Considerations of ayahuasca as an innovative healing tool for EDs must be reviewed in the context of several potential risks associated with ayahuasca drinking. Ayahuasca is a powerful psychoactive preparation that can have significant effects on neurotransmitters in the brain, and like other psychedelic drugs can sometimes acutely induce frightening visions or ideations that may cause psychological distress in vulnerable populations [41]. Although more research is required to clarify the appropriateness and safety of ayahuasca among individuals with an ED, potential related risks for this population include cardiovascular issues, electrolyte disturbances and the use of contradicted SSRIs prescribed for the treatment of comorbid disorders [8, 42]. Additionally, the preparatory diet typically antecedent to, and the purging often associated with, the ritual consumption of ayahuasca was found to activate some temporary patterns of preoccupation with food choices [6]. In instances where the individual is deemed too medically or psychologically fragile for participation in an ayahuasca retreat, and in light of the growing appreciation for caregivers as treatment partners across the lifespan, we believe it is worthwhile to explore the potential for caregivers to engage in healing by proxy, by engaging in ceremonial ayahuasca drinking with the intention of reflecting on relevant family system dynamics and gaining insights on how best to support their loved one.

Finally, as ayahuasca is not a part of the culture or health-care practices in Canada, the United States or Europe, individuals with EDs who seek out ayahuasca for healing may lack the optimal support required for the processing of these experiences. To best serve these individuals, we suggest that therapeutic support should be provided by mental health professionals trained in both ED treatment and in the integration of ayahuasca experiences. For this to occur, changes in policy are required to continue research of ayahuasca drinking in a legal, safe and controlled manner. Whether or not ayahuasca is considered a viable adjunct to treatment, we would also advocate for the development of new psychotherapeutic tools to address the potentially positive effects of ayahuasca, including self-compassion exercises, experiential practices to evoke emotion/memories, and the cultivation of spirituality.

Limitations

This study is exploratory and should be viewed in the context of several limitations. Initially, our study participants were self-selected; therefore, their experiences may not be representative of all individuals with a history of an ED and with experiences of conventional ED treatment. It may be that this group of individuals were independently motivated to recover from EDs, and their having sought out ayahuasca was an extraneous factor in their respective healing processes. We were also limited in the specifics regarding criteria utilized by the diagnosticians and diagnostic subtypes, as well as age of onset of symptoms and length of treatment. Second, this study is unable to clearly discriminate ED improvements attributed to participation in ceremonial ayahuasca from prior experiences in conventional ED treatment. As most individuals in our study participated in ayahuasca ceremonies after their involvement with conventional ED treatment, we cannot determine the impact of these prior treatment experiences on the perceived positive outcomes from their ayahuasca experiences. The impact or influence of these previous therapeutic interventions may have also primed or deepened a level of self-awareness and readiness for healing. Third, this study probed into participant experiences that were retrospective in nature, which could potentially result in issues with recall about their experiences. Furthermore, for all but one of the participants, conventional ED treatment was experienced as first-line treatment and was thus less recent in comparison to their experiences with ayahuasca. It is possible that the recency of their experiences with ayahuasca may have influenced the recall and emphasis of the positive impact of ayahuasca on ED outcomes. The qualitative data collected in this study comes from a heterogeneous sample in that not all participants received the same conventional ED treatment protocol nor did they participate in the equivalent number or type of ayahuasca ceremonies. Thus, we acknowledge, that participants' different experiences may have affected how their experiences were received as a function of these variables.

Conclusions

This qualitative study provides an account of individual experiences with conventional ED treatment and ceremonial ayahuasca drinking, and explores the potential of ayahuasca as an adjunctive ED treatment. Participants were positive about their experiences with ceremonial ayahuasca in that it seemed to lead to deep shifts across a number of relevant areas, and in a way that was perceived to be more efficient than conventional treatment modalities. That being said, we are in no way suggesting that this potential modality replace conventional treatments or that it holds higher

value; rather we would like to encourage other ED clinicians and researchers to consider the possibility that this traditional indigenous healing modality may be helpful for some patients. The results of this study suggest that, at least for some, and in an appropriate context, ayahuasca may be a valuable therapeutic tool and can act as a catalyst that can render psychotherapeutic processes more effective, and perhaps in cases where the standards are not yielding the desired outcomes. Our hope is for this study to initiate a dialogue between clinicians and researchers in the ED field with healers practicing indigenous medicines to eventually build a framework where benefits of both approaches can be mutually supported.

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Compliance with ethical standards

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Ethical approval of the study was granted by Laurentian University and the University of British Columbia.

Informed consent Informed consent was obtained from all individual participants included in the study.

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