

Ayahwasca and the Healing of Eating Disorders

Marika Renelli, Jenna Fletcher, Anja Loizaga-Velder, Natasha Files, Kenneth Tupper
and Adele Lafrance

Eating disorders (EDs) are complex mental health issues that involve cognitive, physical and emotional symptoms (Golden et al., 2003; Polivy & Herman, 2002). It is widely accepted that the avoidance of challenging emotions is central to the development and maintenance of an ED (Harrison, Sullivan, Tchanturia, & Treasure, 2009). Many have theorized that an individual's focus on and negative view of body image, along with attempts to change their body are more strongly related to the embodiment or acceptance of emotion, rather than physical weight and shape (Sim & Zeman, 2005). Negative affect is projected onto the body and engaging in ED behaviors offers temporary relief from unmanageable emotions. EDs also have the highest mortality rate of all the psychiatric disorders (Hoek, 2006) and are considered highly treatment-resistant, especially anorexia nervosa (Waller, 2016). As such, the field has called for innovative treatments to be considered, and as EDs are now a global phenomenon, therapeutic modalities from across cultures must also be explored (Hay, 2013).

Anecdotal reports have indicated that some individuals with EDs have explored the use of the traditional Amazonian plant medicine ayahuasca with positive results. A growing body of research points to promise of its utility in the healing of various mental health issues, including depression, anxiety, substance use disorders, and post-traumatic stress disorder (Fábregas et al., 2010; Halpern, Sherwood, Passie, Blackwell, & Rutenber, 2008; Loizaga-Velder & Verres, 2014; Osório et al., 2015; Sanches et al., 2016; Thomas, Lucas, Capler, Tupper, & Martin, 2013). Recent research has also found ayahuasca to have therapeutic benefit for individuals along the

continuum of recovery from EDs, with respect to symptom reduction and embodiment, among other positive outcomes (Lafrance et al., 2017). Researchers from around the globe are working to understand the therapeutic mechanisms of ayahuasca (Labate & Cavnar, 2014). Preliminary results suggest that ayahuasca works in a holistic manner, including the physical, psychological, and spiritual. For this reason, ayahuasca is a healing tool that has the potential to assist in moving towards an embodied and integrated sense of self.

The Medicine

Ayahuasca, meaning “vine of the soul” in the Quechua language, is a psychoactive substance that originates from the Amazon. It is a brew prepared by boiling the *Banisteriopsis caapi* vine with other plants, but most commonly with the leaves of the *Psychotria viridis* shrub (Rivier & Lindgren, 1972). The plants contain the short-term reversible monoamine oxidase inhibitor (MAOI) alkaloids harmine, harmaline and tetrahydroharmine (*B. caapi*) and the psychoactive alkaloid dimethyltryptamine or DMT (*P. viridis*). The typical effects of the brew involve changes in perception and cognition (e.g. vivid visual and auditory sensations), newfound insights, recollections of memories, strong emotional experiences (e.g. happiness, sadness, fear), bodily sensations, and spiritual and transpersonal experiences (Riba et al., 2001; Shanon, 2002; Strassman, Qualls, Uhlenhut & Kellner, 1994). Certain acute effects of ayahuasca are nausea and purging in the form of vomiting, diarrhea, crying, yawning, sweating and shaking (Barbosa, Giglio, & Dalgarrondo, 2005).

Archaeological evidence suggests that ayahuasca’s ritual use by indigenous Amazonian tribes dates back at least several hundred years (Grob, 2013). Currently, at least 75 indigenous

Amazonian tribes use ayahuasca for ritual and medical purposes (Luna, 2011). Ayahuasca has also been used as a sacrament in the Brazilian-based churches of the Santo Daime since the 1930s, and the União Vegetal since the 1960s. Over the past 25 years, the use of ayahuasca as a psychotherapeutic and spiritual tool has spread throughout North America, Europe and other parts of the world (Tupper, 2008).

The ritual and contextual uses of ayahuasca vary. In traditional practices, a ceremony can involve setting an intention and ingesting the brew in a group, with experienced leaders, or “ayahuascqueros” presiding (Luna, 1986). Ceremonies normally begin after sunset and last several hours. The ceremony leaders may chant, whistle, and sing melodies referred to as “icaros”—believed to assist with the healing process—throughout the ceremony (Luna, 1986). Typically for indigenous-style rituals, dietary and behavioral restrictions are adhered to several days before and after consuming the brew. The restrictions may relate to the consumption of recreational drugs, alcohol, red meat, dairy, salt, sugar, and sexual activity.

The Study: The Role of Ceremonial Ayahuasca Use in the Healing of an Eating Disorder

There has been a recent resurgence in the scientific literature exploring the therapeutic potential of psychedelics, which include ayahuasca, for the treatment of mental health issues such as anxiety, mood disorders, and substance use disorders (Tupper, Wood, Yensen, & Johnson, 2015). The low remission rates of ED coupled with anecdotal reports of ayahuasca’s positive effects point to a need for further inquiry. In response, Lafrance et al. (2017), conducted interviews with 16 individuals with a history of both an ED and ceremonial ayahuasca drinking. Preliminary data revealed behavioral and psychological improvements, including ED symptom

reduction or cessation, improved mood, decreased anxiety and problematic substance use, and improved capacity to process, regulate and embody emotions. Other significant outcomes included insights about the illness, and an improved relationship with the body. Some risks were also reported. For example, some participants noted that the preparatory diet resulted in some familiar ED thoughts. Also of note, one participant shared an experience of inappropriate sexual advances by a facilitator — raising the very important issue of personal safety of this indigenous therapeutic practice without adequate regulatory structure. As a whole, this pioneering study opened the door for the exploration of ayahuasca's use as a potential healing modality among those with a history of an ED. Given the breadth of data collected, the purpose of this study is to report on additional outcomes from this sample.

Method

Data Collection

A purposeful sampling strategy was employed using criterion-based sampling to select cases that were information-rich for our specific research (Patton, 2002). Participants were recruited by word of mouth, advertising on online discussion groups, targeted listservs, social media, and a project website. To avoid a biased sample, participants who had experienced positive, neutral or negative experiences with ayahuasca were encouraged to participate. Inclusion criteria included participants that had been previously diagnosed with an ED by a medical or mental health professional and who had participated in ayahuasca in a ceremonial context at some point in their adult lives.

Participants

As part of the larger study, participants (14 women, 2 men, $M_{age} = 34$ years, age range: 21-55 years) meeting the inclusion criteria were interviewed. The sample included 10 participants with a previous diagnosis of anorexia nervosa and six with a diagnosis of bulimia nervosa. Many participants ($n = 13$) had at some point received ED treatment in inpatient, day hospital and outpatient settings, where various psychotherapeutic modalities were employed. These included cognitive-behavioral therapy, dialectical behavior therapy, acceptance and commitment therapy, eye movement desensitization and reprocessing, rational emotive behavior therapy, psychodynamic psychotherapy and family-based therapy. The approximate number of ayahuasca ceremonies in which interviewees participated ranged from 1-30. For additional information on participant characteristics, refer to Lafrance et al. (2017).

Procedure

Ethics approval was received from Laurentian University and the University of British Columbia. Informed consent was obtained prior to data collection, and following the interview participants were offered information about ED services in their area. The interview schedule was administered via telephone and the call was recorded. The interviews were approximately 75-180 minutes in length and were transcribed verbatim. Transcriptions were reviewed for accuracy by a research assistant and/or a study author.

Semi-Structured Interview Schedule

The interview schedule was developed based on the methodology of Loizaga-Velder and Verres (2014) and the Ayahuasca Treatment and Outcome Project (Rush, personal communication). The interview was semi-structured and included questions relating to

participants' subjective evaluations of ayahuasca's therapeutic potential. The participants were asked follow-up questions when appropriate.

Qualitative Analysis

The interviews were analyzed for themes and patterns by a three-membered team using the methodology of thematic analysis (Braun & Clarke, 2006). Each theme was reported along with the number of participants who endorsed the specific theme.

Inter-coder reliability was measured using average pairwise percent agreement to determine the accuracy of the application of codes to the transcripts among the three coders. Any sub-themes that fell below 80% average agreement were reviewed as a team and a consensus on the final themes was negotiated (see Lafrance et al. (2017), for a detailed description of the methodology).

Rigor

Rigor was ensured during data analysis by methods of investigator triangulation and member checking (Patton, 2002). To confirm accuracy of the analysis, member checking was completed by providing a summary of the results to all participants. Participants were invited to review the themes and provide feedback regarding the degree to which the results accurately reflected their experiences.

Results

Qualitative Analysis

Following thematic analysis of the qualitative interviews, several themes emerged that related to psychological, physical, relational and spiritual effects perceived to be a result of

ceremonial ayahuasca. Table 1 provides an overview of the themes and sub-themes identified, including those reported in Lafrance et al. (2017).

Table 1: Overview and ranking of sub-themes identified from semi-structured interviews

Theme	Sub-theme	Participant Endorsement	
		%	n
Psychological Effects	Improved emotion processing and regulation*	87.5	14
	Validated or transformed subjective theory of illness*	81.25	13
	Developed greater capacity for self -love, - acceptance, -esteem, -forgiveness, - compassion*	81.25	13
	Decreased or cessation of ED symptoms*	68.75	11
	Discovered insights and/or experienced revelatory visions in ceremony*	68.75	11
	Addressed root cause of the ED and/or trauma*	62.5	10
	Reduced anxiety, depression/self-harm, suicidality*	56.25	9
	Reduced cravings and/or use of psychoactive substances*	50	8
	Increased mindfulness	37.5	6
	Acquired insight into purging in ceremony in comparison to purging as a symptom of the ED*	62.5	10
Body Perception and Physical Sensations and Effects	Improved relationship with the body*	50	10
	Improved relationship with food and eating	50	10
	Regulation of weight	31.25	5
	Improved general physical health	18.75	3
Relational Effects and Experiences	Improved relationships with family, children and/or romantic partners	62.5	10
	Experienced intergenerational or relational visions/insights in ceremony	56.25	9

Spiritual and/or Transpersonal Effects and Experiences	Acquired awareness of spiritual/transpersonal connections	93.75	15
	Experienced spiritual/transpersonal connections in ceremony	62.5	10
	Transformed contemplative spiritual or religious practices	56.25	9

*Discussed in a Lafrance et al. (2017)

Psychological effects. A description and interpretation of the sub-themes reflecting the effects of ayahuasca on a psychological level have been described in the exploratory study noted above (Lafrance et al., 2017) which include the participants' perceived: 1) improvement in their capacity to process and regulate emotions; 2) insight into the cause of their ED; 3) increase in their capacity for self-love, -esteem, -compassion, and -forgiveness; 4) addressing the root cause of the ED and/or previously experienced trauma; 5) reduction of thoughts and symptoms of the ED, anxiety, depression, self-harm, and suicidality; and 6) decrease use of and cravings for psychoactive substances.

In addition to the published sub-themes, participants described an increase in their capacity for mindfulness. This included an improved ability to remain in the present moment as well as the ability to experience a greater sense of contentment (37.5%). A psychology graduate student recounted her experience:

A kind of happy after effect is that I'm much more able to live in the moment as opposed to kind of always focusing on the future next thing and more able to just accept what comes today. So, it could even be anxiety, for sure the future planning was an anxiety thing, it was always kind of a perfectionist thing you know 'After I get this degree then I'll have fun,

eventually I'll have fun', and this summer was the most fun I've had in a very long time.

(P11)

Body perception and physical sensations and effects. The theme relating to physical effects and well-being is comprised of four sub-themes centered around improvements in: 1) the relationship with the body; 2) the relationship with food; 3) weight regulation; and 4) general physical health. An additional sub-theme relates to insight into purging in the context of ayahuasca in comparison to purging as a symptom of the ED.

As a result of ayahuasca drinking and in the time period following participation in ceremonies, some individuals experienced their body in a more positive way. This shift was often accompanied with profound feelings of gratitude and honor for their physical body. For some participants, acute visions in ceremony were powerful vehicles for facilitating this transformation. For example, one participant visualized her body as a *“hollow decaying skeleton,”* juxtaposed with visions of herself as a *“beautiful full-bodied woman”* which precipitated a deep desire for healing in that she couldn't wait to *“get back and just start gaining some weight”* (Lafrance et al., 2017).

Similarly, some participants noted a shift towards more balanced food choices and a greater awareness of hunger cues. Others experienced newfound appreciation and respect for food as a form of nourishment, as opposed to a means through which to engage in symptoms. One participant reported a transformation in her ability to engage in mindful eating: *“Now I sit down and every meal I'm able to stop, to chew, to fully be mindful in my meal. I'm not reading, I'm not watching TV, I'm not listening to anything. I really enjoy that moment.”* (P16)

Participants also gained insight into the ways in which their body weight had meaning beyond simply being a consequence of restrictive or binge-eating symptomatology. For some participants, this deeper insight resulted in subsequent changes to their actual body weight, in the direction of their natural set point. A life coach gained insight into both her use of food as a strategy for self-soothing as well as her excess weight as a form of self-protection:

It feels like to me that the weight had something to do with protecting myself and because of ayahuasca I don't have to protect myself anymore . . . and so I started working with the medicine in May and I lost weight without any help, all of a sudden it just melted off. . . I was eating at the hole, which I'm not anymore. (P4)

Ceremonial ayahuasca drinking was also reported to lead to better physical health. Changes included improvements related to, or resolution of chronic health issues that had proven difficult to manage using conventional medicine, including Polycystic Ovarian Syndrome (PCOS), chronic fatigue, and elevated blood pressure. A registered nurse with a history of PCOS shared that after 5 years of amenorrhea, her menstrual cycle resumed after two ayahuasca ceremonies, and has been regular since that time.

The final sub-theme related to purging in ceremony and how it compared to purging as a symptom of the ED (Lafrance et al., 2017). Many participants (62.5%) described purging in ceremony as having a different quality, in that it was perceived as an integral part of the healing process.

Relational effects and experiences. Several participants reported improvements in their relationships with friends and loved ones, including parents, siblings, romantic partners, and

children. They described newfound or deepened capacities for understanding, empathy and acceptance. Following the ceremonies, some participants took action steps towards repairing ruptured relationships. One participant recalled how subsequent to his participation in ceremonies, he engaged in a transformational conversation with his brother, a person with whom he had endured painful childhood experiences. His teaching during the acute ayahuasca experiences allowed him to acknowledge his own suffering and that of his brother's, creating a pathway to compassion and forgiveness:

One of the first things I did when I returned after experiencing ayahuasca was speak to my older brother, who was one of the biggest sources of trauma growing up. And we spoke and I was really shocked by the results. I was communicating with him based on what I had experienced. One of the main points was that he was only capable of the form of abuse that he engaged in from suffering himself. And that if we were going to have a relationship, he was going to have to acknowledge that he needed to heal and to engage in that healing in whatever form that it took. And upon having this discussion with him I was really shocked to see that he actually began to cry. And that's not something we ever do in front of each other. This is all surreal it ever happened, we hugged it out and we began talking about different forms of treatment. (P2)

Several participants reported visions and insights related to important relationships and ancestral lines. These experiences included: feeling a deep connection with caregivers; moving through pain from family-based trauma; and accepting that their loved ones cared for them as best they were able given their own psychological wounds. For example, one participant

described an encounter with an ancestor in which she was shown the intergenerational pain fueling the transmission of maltreatment and abuse in her family. Another participant recalled an acute experience during which she was able to connect with her mother's wholehearted and unconditional love for her as well as her pain:

I had a ceremony where I was a baby and my mom was holding me and I was experiencing the expression of her unconditional love for me which I know was there underneath all of her own conditioning and woundedness. So, the medicine was able to show me that – it really re-patterned that for me - I was able to feel that, like absorb that on a cellular level and to feel a lot of compassion for her as well. (P7)

Spiritual and/or transpersonal effects and experiences. Nearly every participant commented on powerful spiritual and transpersonal effects both during and after participation in ceremonies. The majority of participants recounted an acute experience during which they felt a deep connection to God, a greater entity and/or nature. One participant shared how this in-ceremony experience led to a deepening of her belief in universal love:

I know one of my initial ceremonies I had the experience that was really profound . . . So, I've been raised to think and believe in a God and think that we're all one. So it's hard to really believe it because it's so not tangible and I know when I did that ceremony I felt so connected to God and to that divine presence that there was a beautiful sense of life, like everything was just so beautiful. Life was connected, the birds the trees, everything had a pulse, everything lived. You know shadows came out but there was an abundance of love. So,

because my first ceremony was love I believe it now that it does exist and we're all worthy of it because we're all one, we're all loved. (P8)

Other participants reported that their intense spiritual experiences led to insights into the meaning of life and their role in it. One participant described an acute experience of oneness with nature that also put into perspective the grandeur of life on earth, thus helping to reduce the relative importance of her body weight.

I felt like I was down and the soil was blanketing me and the branches were wrapping themselves around me. I just felt like there's this super intelligence and I feel like that's something I can't take for granted. It's a life force. I feel like I'm a life force and I feel it's all connected now. I'm connected and I'm part of the earth and when I die, my roots and my energy will become some other life force and I just feel like everything is so much more special and it's beyond the stereotype of weight. (P1)

Another sub-theme that emerged related to an increase in religious, spiritual or contemplative practices post-ayahuasca drinking. More than half the participants indicated that these increases involved engagement with meditation, yoga, journaling, and a deeper appreciation for, or reintegration of the practice of prayer. One participant described her deepened re-connection with prayer:

I grew up going to church and then we stopped going to Catholic church when I was like 8 or 9 and we'd go for holidays you know, celebrate Easter and Christmas but I felt really disconnected from that religion and so now I understand more about what prayer is and I do it, and that really helps to anchor me. (P3)

Member checks. Member checks sought participant feedback on the accuracy of the research findings. Only one participant provided additional commentary following member checking, sharing that her lengthy struggle with an ED had ended, her weight had increased and her quality of life had improved:

My 18-year-long eating disorder has stopped. It has been two years since. I was at 95 pounds when I stopped my eating disorder. I am now 110-115 pounds. I had another ceremony telling me to stop tread-milling. I have dramatically reduced my exercise load. I have become a teacher and I have a successful career now! (P1)

Discussion

In this pioneering study, qualitative analysis was conducted to identify the perceived outcomes of ceremonial ayahuasca use among individuals with a history of a diagnosed ED. In the context of this second study, thematic exploration of the participant interviews resulted in the identification of four major themes relating to improvements in various domains of functioning. Specifically, the findings suggest that ayahuasca facilitates healing in a holistic manner, where psychological, physical, social and spiritual aspects of the self are implicated in healing, in turn promoting an embodied wholeness.

Psychological outcomes

A wide range of psychological benefits related to ayahuasca drinking were reported and discussed in Lafrance et al. (2017). Highlights include the potential for ayahuasca in 1. supporting the processing of trauma and/or previously avoided emotion underlying ED symptoms, 2. reducing comorbid symptoms of depression, anxiety, self-harm, suicidality, and

psychoactive substance use and 3. increasing the capacity to love oneself (Lafrance et al., 2017). In addition to these previously reported findings, participants noted improvements in their capacity for mindfulness, including an ability to observe, tolerate and embody their inner experiences, present-moment thoughts, and emotions. This finding is consistent with research that found individuals who had drunk ayahuasca experienced increased capacities for mindfulness according to standardized self-report measures (Sampedro et al., 2017; Soler et al., 2016). They proposed that ayahuasca may facilitate therapeutic change by enhancing an individual's ability to decenter, or create distance from maladaptive thoughts and emotions. This is especially relevant for those struggling with an ED who sometimes experience a harsh and even unrelenting inner critic (Dolhanty & Greenberg, 2007). These findings are also in line with brain imaging studies that have shown that ayahuasca seems to modify the activity of the Default Mode Network (DMN: Palhano-Fontes et al., 2015; Sampedro et al., 2017), an area in the brain linked to self-referential mental activity, emotional processing and memory recollection (Raichle et al., 2001). These researchers propose that ayahuasca attenuates the DMN, which allows for access to meditative states and in turn lead to introspection and changes in self-perception, processes that may facilitate ED recovery.

Body perception and physical effects

Visions in ceremony as well as insights following participation in ayahuasca ceremonies were perceived to facilitate a greater level of respect, love and gratitude for the physical body and food. In some cases, this phenomenon led to reduced ED symptoms, normalization of eating and weight, and more accurate perceptions of the body. Disturbances in eating behavior such as

extreme avoidance, restriction or intake of food are defining characteristics of EDs. Ayahuasca may help some individuals to reestablish a healthy and positive relationship with eating, where food is viewed as a source of nourishment for the body important for physiological health. Additionally, a hallmark of an ED is a turning away from and against the physical body in one's thoughts, attitudes and actions (Stice & Shaw, 2002). The way in which the body is experienced, treated, and nourished is central to the maintenance and resolution of ED symptoms. Therefore, reconciliation with one's physical body in both attitude and action is, in our opinion, a crucial component of ED recovery. It appears from this study that ayahuasca can assist in this process by facilitating a shift – at least for some - towards a more positive relationship with the physical body that supports an integrated and embodied sense of self.

Relational outcomes

Along with physical and psychological impairments, EDs are known to adversely affect social functioning (Fairburn & Harrison, 2003). This is particularly true for those with anorexia nervosa, in which insecure attachments and a predisposition to obsessive compulsive, anxious and avoidant traits increase the risk and maintenance of the disorder (Treasure & Schmidt, 2013; Ward et al., 2001). Furthermore, as the illness progresses, loved ones may understandably experience and express strong emotional responses (Treasure & Schmidt, 2013). An individual who is anxious and emotionally avoidant may find such responses challenging to process and tolerate and, in turn this amplifies difficulties with social processing and emotion regulation, only to create more distanced and strained interpersonal relationships, and increased reliance on the ED for coping. Many participants in this study noted both transformation of childhood pain

relating to attachment injuries or trauma as well as improvements in current relationships with loved ones. These findings confirm those of other studies of individuals participating in ceremonial ayahuasca, in which participants reported greater feelings of love and empathy for others (Harris & Gurel, 2012; Kjellgren, Eriksson, & Norlander, 2009) as well as improved communication, forgiveness and relationship repair (Harris & Gurel, 2012; Loizaga-Velder & Verres, 2014).

Spiritual and/or transpersonal effects

Ayahuasca's effects on participants' deepening of their spirituality occurred through acute in-ceremony experiences of transcendental states, as well as spiritual teachings and insights experienced both in-ceremony and in the time that followed. These findings corroborate reports from individuals with substance use issues who had drunk ayahuasca and attributed their spiritual and transpersonal experiences to have therapeutic value, mainly by reducing drug cravings (Loizaga-Velder & Verres, 2014). Both participants and therapists surveyed hypothesized that these changes may be a result of an enhanced sense of life purpose and meaning, as well as trust in a connection with a higher entity or power. Research with the psychedelic psilocybin also reported that mystical experiences induced while under its effects evoked both personal meaning and spiritual significance, which in turn significantly correlated with reduced tobacco craving and use (Garcia-Romeu, Griffiths, & Johnson, 2015). Although the mechanism of change remains unclear, it has been hypothesized that these positive attitudinal and behavioral changes are the result of powerful spiritual insights and personal meaning interpreted from these acute mystical experiences (Bogenschutz & Pommy, 2012). With this in

mind, it is possible that our participants' reported reductions in ED thoughts and symptoms may in part be a positive effect of their spiritual and transpersonal experiences induced by ayahuasca. Similarly, the spiritual tenets of 12-step addiction recovery programs, such as Alcoholics Anonymous, considers a spiritual transformation or "spiritual awakening" as a central component in changing addictive behavior (Forcehimes, 2004). Research on spirituality and EDs has also demonstrated that improvements in spiritual well-being correlate with better treatment outcomes, positive changes in attitudes about eating and body shape, and reduced ED symptomatology (Richards, Berrett, Hardman, & Eggett, 2006).

Ayahuasca's therapeutic process and value

Given that our primary outcomes reflect this triad of physical, psychological and social domains of healing, we feel it is critical for the field to consider a biopsychosocial approach to recovery. In fact, and in light of our findings, we would go further to again propose that those affected by an ED might be even better served by a biopsychosocial *and* spiritual approach to recovery, regardless of the modality employed. Although conventional ED modalities rarely incorporate a core spiritual component, preliminary research has suggested that spiritual growth may facilitate ED recovery (Richards et al., 2006), and this is supported by our findings. In summary, ayahuasca appears to facilitate an integrative approach to healing an ED that encompasses simultaneous and integrative changes within the whole person - the physical, psychological, social, and spiritual. Moreover, ayahuasca seems to do so by engaging the innate healing resources of the self, promoting the embodiment of the true self.

Additional Considerations

Although the preliminary findings of this study show promise for the ceremonial use of ayahuasca along the continuum of healing from an ED, it is important to delineate some of the risks associated with ayahuasca drinking. Leaders in the field have expressed concern that the dietary restrictions and purging in the context of ayahuasca ritual preparation and participation could trigger or exacerbate ED thoughts and symptoms (Labate, Anderson, & Jungaberle, 2011). While the results of the study by Lafrance et al. (2017) did not validate these concerns, they are based on a relatively small sample, and thus further investigation is warranted. Other considerations include the associated physical complications of EDs and possible contraindications such as electrolyte imbalance, cardiac arrhythmias, low blood pressure, as well as the potential concurrent use of contraindicated selective serotonin reuptake inhibitors (Callaway & Grob, 1998; Riba et al., 2001). These issues may also pose additional risks for those travelling to remote areas of developing countries to access ayahuasca, should complications arise requiring medical attention.

It's important to note as well that some individuals who seek out ayahuasca for mental health issues are desperate for help – especially if conventional treatments have not yielded improvements in symptoms or quality of life. Individuals who seek out ayahuasca for healing purposes may ignore, downplay or hesitate to discuss the associated risks with their loved ones or medical team for fear that they will not be supported, or may even be discouraged to seek out this healing modality. It is also not unheard of for individuals to express fear or concern about their loved one's use of ayahuasca, given the limited research on its use of ayahuasca among those with EDs. As such, medical professionals could benefit from education on the uses and

mechanisms of action of ayahuasca and other psychedelics. The field also requires drug policy that supports the scientific research of ayahuasca among clinical populations most in need.

Study Limitations

This study is not without limitations. There was potential selection bias in that individuals who agreed to participate may have experienced more positive effects of drinking ayahuasca and/or hold more positive views than individuals who did not volunteer to share their perspectives. Anecdotally, there have been reports of less than positive experiences, although these did not emerge in our study.

The interviews were also limited to individuals who had actively sought out ayahuasca, with no comparison to those who have not. There may be individual differences among those who have felt drawn to and actively sought ayahuasca. This poses challenges to generalizing the results to all those with EDs.

In this study, our sample was also quite homogeneous: English-speaking individuals with current or historical EDs. Most of the participants were Caucasian women, and all but one were from North America. Our participants were a highly-educated group, and interestingly, many were employed in helping professions. As such, these individuals may have had greater insight into and theoretical understanding of the psychology of EDs, emotions and trauma, which could have affected their responses. Future research should also investigate the experiences of heterogeneous ayahuasca-drinking ED populations.

Finally, questions and prompts from the semi-structured interview may have influenced some of the participants' responses to support the research questions and outcomes. As such, future

research must extend beyond the exploratory (i.e., longitudinal studies, controlled clinical studies) to evaluate the unique therapeutic potential of ceremonial ayahuasca drinking.

Conclusion

We believe the study results are significant in that they provide new perspectives and opportunities for therapeutic pathways for EDs, especially among Westerners. These findings point to some of the potential therapeutic changes in the healing of EDs, some of which may inspire future innovative and integrative modalities of treatment.

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