

Getting to the root: Ceremony leader perspectives of the healing potential of ayahuasca drinking
for eating disorders

by

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Abstract

Ayahuasca is a plant medicine traditionally used by Indigenous groups in the Amazon. Researchers are now exploring its healing potential for mental illnesses. This qualitative study evaluated the perspective of fifteen ceremonial leaders' using content analysis on the healing potential of ayahuasca drinking among individuals with eating disorders. Leaders' theories of eating disorders included the belief that eating disorders: are reflective of a deeper issue, including unprocessed trauma; have an adaptive function; affect health on multiple levels; are similar to addiction. Leaders' theories on the healing mechanisms of ayahuasca included that ceremonial experiences: support participants to process and integrate underlying causes of the illness; facilitate physical, spiritual, mental and emotional healing; enhance and reorganize relationships with symptoms, self, community and creation; and support healing through a general shamanic approach. From their perspective, ayahuasca offers a potentially new and novel treatment option in the healing of eating disorders.

Keywords

Ayahuasca, Traditional Medicine, Eating Disorders, Psychedelics, Ceremonial Leaders

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1. Introduction

1.1 Ayahuasca

The term ayahuasca comes from the language of the Quechua people whose territory falls within the imposed borders of Ecuador, Peru, Bolivia, Chile and Argentina (Liester & Prickett, 2012). In the Quechua language, ayahuasca roughly translates to “vine of the soul” or “vine of the dead” (Grob, 2002; Metzner, 2006). Ayahuasca refers to a psychotropic tea made from Amazonian plants, traditionally brewed by Indigenous communities in the Northwestern Amazon basin for both spiritual and healing purposes (Tafur, 2017). Among Indigenous communities, cultural practices connected to ayahuasca drinking vary; however, commonalities also exist, including consuming ayahuasca in a ceremonial context, under the guidance of a shaman or ceremonial leader (Tupper, 2009a, p.298; Liester & Prickett, 2012).

To brew ayahuasca the bark or vine of *Banisteriopsis caapi* is boiled with *Psychotria viridis*, although other plants may be used (Harner, 1973). *Banisteriopsis caapi* is a jungle vine, which contains beta-carboline alkaloids including harmine, harmaline, and tetrahydroharmine that act as potent monoamine oxidase inhibitors (MAOIs) (McIlhenny et al., 2011; Metzner, 2005). The leaves of *Psychotria viridis* are rich in the psychedelic N, N-dimethyltryptamine (DMT). The MAOIs render the DMT orally active by inhibiting monoamine oxidase enzymes in the digestive tract from breaking down the DMT (Callaway et al. 1999). The combined action of the peripheral (gastrointestinal and liver) monoamine oxidase A (MAO-A) inhibition of harmine and the agonist action of DMT on central 5-HT_{1A/2A/2C} receptors in the frontal and paralimbic brain areas produce the psychoactive effects for which ayahuasca is known (Leister & Prickett, 2012).

1.2 Ceremonial Experience and Effects of Ayahuasca

Ayahuasca has become increasingly popular outside of the Amazon, with Westerners seeking out ceremonies for a variety of reasons, including healing purposes (Luna, 2011; Tupper 2009a). With a greater diversity of individuals seeking training to become ceremonial leaders, ayahuasca ceremonies are now beginning to take place in communities across North America, as well as in South America. Most often, ceremonies are conducted in a group setting in a ceremonial gathering space, such as a maloka, under the guidance of a shaman or ceremonial leaders. Ayahuasca ceremonies are usually held at night and last until the effects of ayahuasca have dissipated. Participants may be offered one dose of ayahuasca or several doses throughout the course of the ceremony. During the ceremony, the shaman and other helpers, who have ceremonial experience, offer spiritual guidance to participants and monitor participants for safety. Spiritual guidance is often offered in the form of music or chanting.

While the experiences of participants in ayahuasca ceremonies vary, individuals typically begin to feel the effects of ayahuasca within 30 to 40 minutes of consumption, with effects peaking around two hours after ingestion and subsiding within six hours. Many participants experience vomiting or diarrhea, which is commonly understood to signify a spiritual, psychological or physical cleanse (Tupper, 2009a). Psychologically, the effects of ayahuasca extend to alterations in perception, emotions and thinking (Barbosa et al., 2011). Ingestion typically induces a dream-like experience characterized by visions and autobiographic and emotional memories (Soler et al., 2016). Thoughts often coalesce on personal psychological content, helping to provide insight into personal challenges, through the revisiting of past memories (Renelli et al., 2018). Intensified emotional reactions are also common, including

heightened feelings of happiness, sadness, awe, amazement, anger and fear. Feelings of rejuvenation and hope are also commonly reported. Research suggests that intensified emotions and insights experienced during the ceremony often persist after the effects of ayahuasca dissipate (Uthang, 2018). These experiences are thought to enhance self-acceptance and mindfulness capacities. Ayahuasca experiences are also commonly described as transcendent; that is, outside of the range of physical human experience (Leister & Prickett, 2012, p.203).

1.3 Eating Disorders and Ayahuasca

The American Psychiatric Association (2013) characterizes eating disorders (EDs) as serious mental health disorders, which cause severe disturbances in eating behaviors and related thoughts and emotions. While there is considerable variance in the symptomatology of these disorders, symptoms across anorexia nervosa, bulimia and binge eating disorder negatively impact the functioning of bodily systems, as well as psychological and social well-being in those affected (Arcelus et al., 2011; Mitchell & Crow, 2006). Eating disorders often present with comorbid conditions including anxiety, depression and problematic substance use (Hudson et al. 2007). They are frequently described as being among the most challenging mental illnesses to treat, with research suggesting anorexia is the most fatal of all psychiatric illnesses (Arcelus et al., 2011). Among individuals living with eating disorders, completion rates for interventions are low, while relapse rates are high, particularly for anorexia nervosa (Khalsa et al., 2017).

In an effort to explore alternative treatment modalities, recently conducted qualitative studies have explored the experiences of participants with both a history of an eating disorder and participation in ceremonial ayahuasca use (Lafrance et al., 2017; Renelli et al., 2018).

Results from these studies revealed positive outcomes for individuals along the spectrum of

eating disorder recovery. Both studies drew from the same data set which was derived from information collected through semi-structured interviews with 16 individuals, with a range of eating disorder presentations along the spectrum of eating disorder recovery. Further, individuals presented a range of experience with ceremonial ayahuasca drinking and with conventional eating disorder treatment. The interviews were analyzed using thematic analysis by a team of three researchers for investigator triangulation.

In the first study, Lafrance et al. (2017) found that the majority of study participants reported a reduction or cessation of eating disorder symptoms following participation in ceremonial ayahuasca drinking, as well as positive alterations to body perception (p.430-431). Participant descriptions of their experiences suggest ayahuasca provides a window into the conscious and subconscious mind, allowing individuals to revisit significant memories and unprocessed emotions, and make connections between these and current challenges (Lafrance et al., 2017; Renelli et al.2018). Additional outcomes reported included improvements related to emotion processing and regulation, interpersonal relationships with close others, and spiritual or religious connectedness.

In the second study, Renelli (2018) explored participant experiences with ceremonial ayahuasca drinking and conventional treatment for eating disorders (Renelli, 2018). Common themes from participants' interviews included the perception that ayahuasca led to more effective and deeper healing than conventional eating disorder treatment and that ayahuasca had allowed for the processing of intense emotions and/or memories thought to be fuelling symptoms (Renelli, 2018, p.3). The study concluded that ceremonial ayahuasca drinking offers a potentially

innovative treatment by facilitating holistic change at different levels, supporting individuals to move towards a more embodied and integrated sense of self (Renelli, 2018).

In order to further explore the potential for healing offered by ayahuasca among individuals living with eating disorder, this study sought to expand the current body of research to include the perspective of ceremonial leaders. Ceremonial leaders can offer an important cultural perspective through which eating disorders can be understood and provide potentially valuable insights into the ways through which ayahuasca can support healing among those suffering.

2. Method

2.1 Participants

Leaders of ayahuasca ceremonies were recruited via word of mouth, social media, on-line discussion group advertisements and targeted listservs. Participation in the study was restricted to leaders who could read and converse in English. The leaders ranged in age from 30 to 60 years. Eight of the leaders identified as male, five as female and one as Two Spirit. Leaders reported a range of experience working with ayahuasca, from two to twenty years. The training experiences described by leaders varied with most leaders have trained under an experienced ayahuascero in South America, before beginning to offer ceremonies on their own. Training in relation to ayahuasca typically involved participating in multiple ceremonies as a participant, supporting ceremonies as a helper and eventually facilitating or co-facilitating ceremonies. Three of the leaders also described participating in shamanic dieta, “a practice of drinking plant preparations in isolation in the rainforest while observing dietary restrictions, abstaining from social relations, sexual activities, and the use of perfumes,” as part of their training (Politi et al.,

2019). Additionally, two of the leaders reported receiving some training in the treatment of eating disorders, through graduate studies.

2.2 Semi-structured Interview Schedule and Procedure

Each of the participants completed a semi-structured interview via telephone using a pseudonym. Participants were informed that they could skip questions and stop the interview at any time. Among other topics, interview questions focused on the ceremonial leaders' beliefs about the healing potential of ayahuasca in general and in the context of eating disorders, as well as their personal experiences supporting those with eating disorders in a ceremonial context. Interviews were recorded, anonymized, transcribed and verified. This study received ethics approval from affiliated universities (Laurentian University and the University of British Columbia). Individuals who conducted the interviews had professional degrees in mental health and research experience in both eating disorders and ayahuasca. The interview guide and questions were developed from those used in a previous study which explored the healing potential of ayahuasca among individuals living with problematic substance use (Loizaga-Velder & Verres, 2014). Interview questions included questions relating to ceremonial leaders' personal experiences with eating disorders, current theory of eating disorders, familiarity with conventional eating disorder treatment approaches, perspective on the potential therapeutic value of ayahuasca in healing from eating disorders and limitations of ayahuasca in the healing of eating disorders.

2.3 Qualitative Analysis

Inductive qualitative content analysis was used to analyze and report patterns and phenomenon that emerged within interviews with ceremonial leaders. Content analysis is a

research method which allows passages of text, which share the same meaning, to be condensed into categories and sub-categories, allowing researchers to make inferences about patterns within the data set (Elo & Kyngas, 2008; Graneheim & Lundman, 2003; and Graneheim et al. 2017). In the context of this study, the unit of analysis was recorded interviews, which varied between approximately 60 and 120 minutes in length. Two researchers used, Dedoose, a recognized web-based application for mixed methods research to code the data and to derive content areas, categories and sub-categories. Questions from the interview guide which were deemed relevant to the research question were selected and the text was then divided into condensed meaning units including words, sentences and paragraphs. The coding began from general concepts and then moved to higher order categories. As the researchers individually coded each interview, they identified categories and sub-categories, which were then tested and revised as they continued to work through the analyses of succeeding interviews.

In order to ensure reliability in the analysis process, the two researchers individually coded each interview, discussed the outcome and agreed upon revisions. Researchers also kept a journal detailing their process and reflections. After the researchers had completed coding all of the interviews, over 80% of codes were consistent between the two researchers. The principal investigator also reviewed and discussed the coding of the interviews with the researchers, throughout the analysis, to assure consistency. In relation to the leaders' theories on eating disorders, four content areas emerged. In relation to the healing modalities of ayahuasca in relation to eating disorders, four content areas also emerged. Both content areas were formed with unanimous agreement by researchers.

3. Results

Qualitative content analysis of the 15 interviews with ceremonial leaders revealed two primary content areas: theories relating to the etiology of eating disorders and the potential of ayahuasca as a healing modality among this demographic. First, ceremonial leaders believed that eating disorders: (1) signified an individual was struggling with a deeper issue including past traumatic experiences, lack of self-love and self-worth and lack of spiritual connection; (2) had an adaptive function; (3) affected health in multiple domains and (4) were similar to addiction. Further, some leaders reported they did not have a theory on eating disorders (5). Second, leaders reported that ayahuasca facilitates healing among individuals living with eating disorders through: (1) a general shamanic approach similar across disease presentations; (2) alterations to consciousness guiding participants to process and integrate underlying causes of eating disorder behaviour; (3) enhancing and/or reorganizing relationships with the self, with others, with creation and with their eating disorder; and (4) supporting holistic healing.

Table 1: Overview of Content Areas and Categories Drawn from Ceremony Leaders' Perspectives

Ceremonial Leaders' Theories on Eating Disorders:	Ceremonial Leaders' Perspectives on the Healing Modalities of Ayahuasca
(1) signified an individual was struggling with a deeper issue: <ul style="list-style-type: none"> • past traumatic experiences; • lack of self-love and self-worth; • and lack of spiritual connection. 	(1) a general shamanic approach similar across disease presentations;
(2) had an adaptive function;	(2) alterations to consciousness guiding participants to process and integrate underlying causes of eating disorder behaviour;

(3) affected health in multiple domains; and	(3) enhancing and/or reorganizing relationships with <ul style="list-style-type: none"> • the self, • with others, • with creation • and with their eating disorder; and
(4) are similar to addiction.	(4) supporting holistic healing.
(5) no theory	

3.1 Content Area 1: Leaders' Theories on Eating Disorders

3.1.1 Category 1: *While Unique Factors Contribute to Disease for Each Individual, Eating Disorders Indicate a Person is Struggling with a Deeper Issue*

Four leaders spoke about the importance of focusing on the cause of an eating disorder, as opposed to eating disorder behaviour. Leaders emphasized that unique life experiences contribute to eating disorder presentation and that healing methods should be focused on helping participants to identify the deeper issues as opposed to correcting eating disorder behaviour.

“It’s very much looking at the cause, the root, of things...[I]t’s not a behavioral approach.”

Leader 8

These leaders described the importance of taking an individual approach with each participant in ceremony to help them understand the root cause of their eating disorder. One leader described how ayahuasca can allow an individual to deeply introspect and find the roots of their suffering.

“It’s very individualized...but usually with ayahuasca, I ask them to go into that part of themselves and trace, see where the roots of it are. And sometimes they are able to trace that eating disorder to a particular instance in their childhood.” *Leader 9*

Leaders clarified that even among individuals with the same eating disorder, there will be variance in the underlying cause of the disorder.

“Every single person is going to be different. You know, one person with anorexia is going to be different from another person with anorexia.” *Leader 1*

Building on this category, many leaders described the underlying issues that they had observed in individuals living with eating disorders. The issues were grouped into three sub-categories.

Sub-category 1: Eating Disorders Suggest an Individual has Experienced Trauma.

A common perspective among leaders was the belief that the presence of disease, including eating disorders, is rooted in the unmanaged pain of traumatic experiences.

“I think the circumstances and the details are different. Although there are a lot of similarities, I believe that they are all trauma-based.” *Leader 5*

Further, reflecting on their ceremonial experiences with individuals with eating disorders, leaders noted that the traumatic experiences of participants varied significantly, ranging from bullying in elementary school, to sexual abuse in adolescence, to complex trauma across the life course, to attachment injuries with caregivers.

“I believe...childhood trauma is the root of everything. You know, childhood disconnection to their caretaker, the whole theory around attachment and authenticity...[T]he child’s desire for attachment is so strong that it’ll be inauthentic to get that need [met], to get that attachment, to get that love... [W]orking with people with eating disorders, that’s the common thread I find.”

Leader 1

One leader also noted that eating disorders can result from intergenerational trauma.

“And that trauma doesn’t even necessarily have to be a person’s own. It can be a response to multi-generational trauma. So, there can be messaging around food, say, based on an ancestry of extreme poverty and deprivation that comes through. And so that person can be manifesting that trauma based on something that happened with their mother or father, and that messaging got transmitted. Much [in] the same way we now know that children of parents with PTSD will exhibit signs of PTSD, even though they were never exposed to the trauma.” *Leader 5*

Sub-category 2: Eating Disorders Illustrate a Lack of Self-Love and Self-Worth.

Four leaders identified a lack of self-love and self-worth among individuals living with eating disorders. Leaders identified a variety of factors leading individuals to lack self-love and self-worth ranging from social norms around appearance as well as painful experiences.

“Yeah, one woman specifically had very bad type 2 diabetes, which stemmed out of her compulsive eating of sugar, through some kind of emotional issue or a number of emotional issues, most of which stemmed from a lack of self-love and self-worth.” *Leader 4*

Building on this, three leaders described eating disorders as providing a forum for individuals to express their self-loathing, self-hatred and self-aggression.

“I think that it’s often a manifestation of self-aggression. Like, if you have parts of yourself that you hate.” *Leader 6*

One leader spoke of their experience working with survivors of sexual violence in ceremony. The leader described the negative impact of sexual abuse on self-love and self-worth, with food providing an avenue to engage in self-destructive behaviour.

“[This person] suffered from something that clearly comes from some kind of sexual trauma from her childhood. And in working through this woman’s process and meeting up with her,

following up with her...it stems to self-destructive behavior. And one of the ways she could engage in self-destructive behavior was through food.” *Leader 4*

Two leaders identified cultural and societal pressures as factors related to the development of an eating disorder, noting that societal pressures and ideals connected to appearance and weight can negatively influence self-love and self-worth. It was recognized that cultural and societal pressures affect both men and women in different ways. One leader stated:

“Culturally, our beauty standards...are bombarded into our brains every single day. So that, for men, it’s the gorging of yourself to get all the muscles. I mean, you have to eat so much damn food to build a body that people say is attractive...And, on the other hand, for women sometimes, it’s eating less and less and less to be the size zero that’s on the magazine and photoshopped.”

Leader 14

Sub-category 3: Eating Disorders Represent a Lack of Spiritual Connection.

Six leaders highlighted that many disorders, including eating disorders, stem from a lack of spiritual connection to the self and the universe. These leaders described individuals with a lack of spiritual connection as having a void in their lives, which eating disorder behaviours served to fill. Ceremonial experiences were seen to support individuals to have spiritual experiences and reconnect to the cosmos.

“In the case of bulimia or overeating, [individuals] feel like there is some kind of empty space they are trying to fill up...[M]ost diseases like this I can trace back to a kind of a forgetting of one’s nature as spiritual, as spirit.” *Leader 9*

Several leaders also stated that biomedical perspectives tend to under-emphasize the spiritual component of illnesses. While they acknowledged the value in biomedical models, including the Diagnostic and Statistical Manual of Mental Disorders V (DSM), there was recognition that deeper understanding and healing of disease requires a spiritual component.

“What we call mental illness...according the DSM in allopathic medicine, that’s great...[I]t’s a pointer. But it’s not the end of the story. [W]hy we get to that place is very complex. And I think the missing piece in allopathic medicine is the spiritual component.” *Leader 5*

3.1.2 Category 2: Eating Disorders Have An Adaptive Capacity

Seven leaders understood eating disorders to have an adaptive capacity in that eating disorder behaviour allows individuals to avoid, control and manage pain stemming from painful experiences or other challenging affective experiences. For example, an eating disorder may provide an individual who has experienced sexual abuse with a feeling of control over what is entering their body.

“From early childhood on, people are expressing or trying to deal with experiences in so many different ways...[O]ne of them is an eating disorder...which means...having power, controlling. I control what I do. Maybe there was [a] trauma where that was not happening. Somebody controlled the body of the person.” *Leader 7*

Five leaders explained that eating disorders could be understood as attempts at healing in that eating disorder behaviour provides individuals with temporary relief from the pain of traumatic experiences.

“But it’s all an attempt to heal...as opposed to attempts to kill ourselves, which [is what] we’ve been told [about eating disorders]. But even that attempt to kill ourselves is an attempt to heal some other really deep wound that isn’t getting healed some other way.” *Leader 5*

Leaders described how eating disorder behaviour allows individuals to avoid feeling emotions.

“I think that when we become immune to feelings...we think we’re avoiding them. And so if you think about what it feels [like] to be hungry, just like a normal sense of, ‘I’ve expended all these calories and I’ve used up all this energy, and now I’m hungry.’” And [then] to not tend to that feeling of hunger, so much [so] that you get to a point where you don’t even feel it anymore. So if you do it there, then that becomes the vehicle by which we are able to avoid feeling the pain of what is really underneath it.” *Leader 6*

3.1.3 Category 3: Eating Disorders Affect Health on Multiple Levels

One leader specifically described eating disorders as affecting physical, emotional and spiritual health. While not referencing eating disorders specifically, the majority of leaders (10) described disease presentation in general as affecting health on multiple levels, illustrating a holistic conception of health and wellness.

“[I]n any illness, there’s physical, spiritual and emotional. They need to all be addressed when you’re working with someone with any kind of illness. You can’t separate those three parts, right? They come as a whole.” *Leader 1*

This statement illustrates that from the perspective of ceremonial leaders, the healing and treatment of eating disorders necessitates approaches to healing that attend to different components of the self simultaneously. Building on this, leaders commonly perceived conventional eating disorder treatment programs to lack a holistic approach and felt that conventional programs tended to emphasize treating eating disorders symptoms. Further, some leaders felt aspects of conventional eating disorder treatment programs could impeded holistic healing. One leader described:

“Maybe I’m biased because I don’t have a lot of belief in the medical system...By the time they get to see me they’ve been drugged up for years on anti-depressants, anti-psychotics, anti-anxiety

and none of the root issues are dealt with, all they're doing is taking a bunch of medication to suppress the emotions." *Leader 1*

3.1.4 Category 4: Eating Disorders are Similar to Addictions

Five leaders viewed eating disorders as a form of addiction. The leaders described eating disorder behaviour as an addictive pattern, resulting in self-destructive behaviours.

"I think that eating disorders, in many ways, [are] very similar to addiction. It's an addictive pattern. It's a repetitive mind pattern that's causing destructive behaviour for somebody." *Leader 2*

One leader described the similarities between eating disorder behaviour and problematic substance use in terms of the self-reinforcing nature of the behaviours.

"Eating disorders end up taking on a life of their own because of the reinforcing nature of the positive feelings they evoke, although they also lead to a lot of negative feelings...[This is] very much in what you would find in a substance abuse model." *Leader 13*

3.1.5 Category 5: Leader Does Not Have a Theory on Eating Disorders

The experience of ceremonial leaders with participants who had or were experiencing an eating disorder varied. Two leaders did not feel they had sufficient experience working with such individuals to provide a theory on the causes of eating disorders:

“I wouldn’t, I don’t think I have the experience to answer that.” *Leader 10*

3.2 Content Area 2: Healing Mechanisms of Ayahuasca in the Context of Eating Disorders

One leader commented that they did not have a perspective to share on the healing mechanisms of ayahuasca with eating disorders. They described healing mechanisms in relation to eating disorders and ayahuasca as still being established. The other leaders put forward ideas on the healing mechanisms of ayahuasca that are outlined below.

3.2.1 Category 1: General Shamanic Approach Across all Disease Presentations

Four ceremonial leaders spoke of having a general shamanic approach that they employ across disease presentations, as opposed to a specific approach they use with eating disorders.

“So, nothing specific to eating disorders but rather a more general shamanic approach.” *Leader*

10

“I think [ayahuasca] works in very much the same way on all diseases and disorders. It fixes the energetic components and that hold tension in the body which...in the end, [is] the root cause of any disease or disorder.” *Leader 6*

This approach focuses on energetic healing and restructuring through the use of a variety of shamanic techniques, including *icaros*. The singing of *icaros*, or medicine songs, intended to facilitate healing was described by one leader as working in conjunction with ayahuasca to move energy and clean trauma in layers.

“In terms of my work with a person, it’s about cleaning the trauma from the body, from the spirit and from the mind. You will see a lot of energy in the stomach, in the second and third chakra, sometimes there’s sexual abuse connected to it so you have to start to work through that. After 4 or 5 nights you start to move more into the heart issues and start the deeper stuff.” *Leader 1*

Further, leaders stated that following a shamanic approach, the healing potential of ayahuasca arises not just from the plant, but also from the practitioner, the community, the setting, the participant and their intentions.

3.2.2 Category 2: Through Alterations to Consciousness, Ayahuasca Guides Participants to Process and Integrate Underlying Causes of ED Behaviour

Leaders described ayahuasca as working in an individualized manner by helping each participant to understand the unique causes of their suffering. The majority (12) of leaders identified trauma as a root cause of eating disorder behaviour and of disease presentation generally. Ceremonial ayahuasca drinking was seen to provide participants with insight and awareness into the connection between past traumatic experiences and eating disorder presence.

“I’m of the belief that pretty much under everything is trauma. [A]yahuasca has the capacity to help heal that trauma or bring us back into a more regulated state in a really specific way.”

Leader 5

Leaders highlighted that individuals may not recognize the spiritual or emotional roots of their eating disorder, particularly in instances where memories of traumatic events are suppressed.

Leaders described ayahuasca as supporting and guiding participants to understand these underlying causes of their illness. One leader described how ayahuasca can communicate or bring to light root causes for participants:

“[Ayahuasca] can get to the spiritual crisis or emotional crisis that is underneath the eating disorder. It can get to the root of that. That can be something that can be communicated to the person really clearly, or it could be something that, spiritually, the ayahuasca can work on and just actually pull out in some way.” *Leader 2*

Another leader described:

“[Ayahuasca] has the ability to address [an eating disorder] at its root, not just deal with the symptoms of the issue...It has the ability to...transform...the motivation behind the eating disorder.” *Leader 3*

Leaders highlighted that each participant with an eating disorder will have a different ceremonial experience. Ayahuasca was described as being sentient and as having an awareness (deeper than that of the ceremony leader) of the type of experience an individual requires in order to heal.

“The spirit of the medicine and the intelligence of it seems to know what’s right for each individual.” *Leader 6*

One leader described ceremonial ayahuasca drinking as providing a safe framework for individuals to begin to identify the root causes of their eating disorder and integrate this understanding, considered essential to an individual’s healing journey.

“In the vast majority of cases, what I’ve found to be very effective is for people to have a safe framework for them to go inside themselves experientially and figure out the cause of this thing. Because when they get in touch with the cause of the thing...it really eliminates the shame. When they -- not just psychologically but experientially -- can look and go, ‘Oh, when this happened to me, I was scared and I was hurt. And that’s when I started doing this, and when I

started doing this, it made me feel better.’ And then they’re able to feel through whatever that trauma was, and begin to integrate it, as we say, to start turning lead into gold.” *Leader 8*

Another leader described how ayahuasca could facilitate participant connection to memories of traumatic events that had been suppressed:

“[Among all participants] with eating disorders, there was always something that could be traced back to childhood, which was very traumatic, which all of these people actually forgot. It came up during ceremonies. And then these people could make a connection with it, that they actually tried to suppress these kinds of memories. From my point of view, when you drink ayahuasca, the barriers, which are between your unconsciousness and your consciousness, are broken up.”

Leader 15

3.2.3 Category 3: Ayahuasca Enhances and/or Reorganizes Relationships Holistically

Leaders observed that ayahuasca can have a powerful effect in rebuilding or reorganizing relationships in multiple areas, including with the eating disorder, but also with oneself, with spirit and with community.

Sub-Category 1: Ayahuasca Enhances and/or Reorganizes the Relationship with the Eating Disorder.

Ceremonial experiences can provide an individual with insight into how they can begin to address the underlying issues, contributing to eating disorder behaviour. Ceremonial experiences can facilitate this awareness in a variety of ways including through direct messages or instruction from the plant or plant spirit.

“[Ayahuasca] can give somebody a lot of information about what the different things are that contribute to their eating disorder, and can give them information about how they can address that and what they can do to support themselves in a good way around it.” *Leader 2*

Three leaders described that when participants receive messages directly from the plant it could be particularly impactful. Such messages were described as providing participants with specific directives, while other messages were broader and more open to interpretation. One leader, who had experienced binge eating disorder described receiving a message from the medicine:

“The ayahuasca going “Hey you’re going to fucking die if you keep doing this. This is bullshit. You’re really hurting yourself. And there’s no way you’re going to make it through these dietas...if you keep eating like this. This is ridiculous.” I’ve had that kind of stern parent experience in ceremony a number of times.” *Leader 11*

Leaders also recognized that participants are typically more open and receptive to receiving a message or directive in a ceremonial context from a plant or plant spirit, than they are to receiving a similar message from a health or mental health practitioner.

“[T]he consciousness of the plants can be really deeply penetrating, for somebody to receive that kind of information in a way that it’s not the same as their therapist is telling them that, or even their loved ones. It’s received in a really different way when you are experientially in a journey and that’s coming to you through the grace of the journey, the grace of the internal conversations that happen.” *Leader 2*

One leader described how ceremonial experiences can help an individual to see the impact of eating disorder behaviour on their body and provide guidance on how to heal.

“One participant had type 2 diabetes, and he was obese. And, in ceremony, he was told to only eat purple food. For a year he did this. He only ate purple food:…blueberries, beets, blue corn. And he lost all his weight, and his diabetes was cured.” *Leader 12*

Ceremonial leaders viewed themselves as guiding people to establish healthy eating patterns, through their facilitation of various ceremonial components, including supporting participants to adhere to the preparatory diet. One leader stated:

“I try the best that I can to guide people into healthy eating patterns.” *Leader 6*

Building on this, two leaders described how ceremonial components including the preparative course of food restriction prior to ceremonial participation as well as the purging by vomiting that can occur in ceremony, can help individuals to relearn food restriction and purging as healthful experiences in the context of ceremony.

“[S]pecifically with the dieta, having the lived experience of restriction being something healthy. And having the lived experience of possibly a purge being something healthy. So what it’s doing is, is that the same thing that the eating disorder considers symptoms, or pathology, then becomes something positive.” *Leader 5*

Sub-Category 2: Ayahuasca Enhances and/or Reorganizes the Relationship with Self.

Ayahuasca experiences have the potential to be transformative in terms of reorienting an individual to seek out healthful behaviours that support wellness and wholeness. This is reflective of the sustained impact ceremonial experiences can have on individuals in their day to day lives following ceremony participation.

“[W]hether it’s an eating disorder or any reason why somebody comes to ayahuasca, ayahuasca can have, for some people, a really powerful kind of self-organizing quality to it. Where, after an ayahuasca ceremony, whether you have a disorder or not, you oftentimes find yourself in a place where you kind of naturally are craving things that are good for you and you are naturally

orienting towards good choices. That does not happen all of the time for all people, but that is something that can happen for many people that can also be beneficial and therapeutic for somebody with an eating disorder.” *Leader 2*

Building on the understanding that eating disorder behaviour helps to manage certain emotions, two leaders noted that ceremonial experiences, which can be uncomfortable and difficult, help an individual to build tolerance for distressing emotions. Thus, experience in ceremony provides participants with experience managing challenging affective states outside of eating disorder behaviour.

“[I]t’s amazing in ayahuasca for people to learn that they can experience so much discomfort and come out the other side OK and healed...So, it can teach people how to have their feelings, have negative emotions and uncomfortable feelings and experiences, with some faith that it’s going to be OK.” *Leader 12*

One leader described ceremonial ayahuasca drinking as allowing an individual to integrate the different events they have experienced across the life course, which may be causing them pain. Introspection during ceremony can draw an individual’s attention to the aspects of themselves that require attention and love.

“It helps [a participant] to become more of a full person, without division within themselves. And we look at the eating disorder as a division within oneself. Once [participants] are able to

heal that part of themselves and have communication with that part of themselves that is hurting, that is in pain, that is unloved, that is lacking attention...once there is attention there, love flows through that part of themselves, then the eating disorder can kind of trail away, and fall away, and they become a more coherent, whole person.” *Leader 9*

Sub-Category 3: Ayahuasca Enhances and/or Reorganizes the Relationship with Community.

Recognizing that eating disorder behaviour can lead individuals to be isolated, ceremonial experiences were seen to provide healing in part through the connection to community and through the spiritual experiences in ceremony. Furthermore, by participating in ceremonial ayahuasca drinking, individuals enter into a spiritual community. Connection to other individuals, particularly those who have overcome similar challenges, provides hope and guidance to individuals who are just beginning their healing journey.

“[Y]ou could consider that connection preventative medicine...[Y]ou’re kind of ostracized and left alone within that ailment. So community becomes vital in helping you overcome it, seeing people that look like you, who have overcome it, that are willing to be there for you to walk through it.” *Leader 14*

Connection to community, also introduces participants to individuals who are similarly focused on healing and wellness, which may be lacking in their current peer group. Leaders recognized

that continued connection to this community, following ceremony participation, through social media or video conferencing, is integral to facilitate continued connection, integration and growth from ceremonial experiences.

“Experience of connection in community and communion with spirit, people who have that orientation that can really help people. It gives them more resilience and healing with whatever they’re dealing with. As well as [inspiring them] to really make changes in their [lives] and have more of an appreciation for life in general...” *Leader 13*

One leader commented that individuals who have not participated in ayahuasca ceremonies may have difficulty connecting to the experiences of those who have. They emphasized the importance of ceremonial communities due to the shared experience and understanding that exists within them. Without such support, from open-minded peers or a ceremonial community, participants can feel isolated and return to problematic behaviours.

“[Y]ou need other people to reflect with, afterwards. It’s...a lonely experience when someone has this really profound experience and then goes and tells their friends or loved ones and they don’t care...And someone can end up feeling very isolated and then go back into their old patterns. So it’s feeling part of a group...[I]t’s a lot different, being held with other people, a lot easier to do the work. I think it’s a big, big aspect of the overall healing, this integration and finding others that you resonate with.” *Leader 9*

Sub-Category 4: Ayahuasca Enhances and/or Reorganizes the Relationship with Spirit

Five leaders identified that healing through ceremonial ayahuasca drinking occurs in part through the (re)connection to spirit and spiritual community that ceremonial participation facilitates. For example, one leader stated:

“[I] try to open up th[eir] senses and... reconnect them to creation. A lot of them, because of the trauma, any kind of trauma someone receives, it’s very difficult for them to connect to their source. There’s a fear and there’s a doubt around that, so you have to kind of rebuild that.”

Leader 1

3.2.4 Category 4: Ceremonial Experiences Facilitate Healing of Different Levels and Aspects of the Self

Eating disorders were commonly understood to negatively influence the spiritual, physical, emotional and mental aspects of self. Five leaders described ceremonial ayahuasca drinking as facilitating holistic healing of the self through various aspects of the ceremonial experience.

“What we’re doing with ayahuasca is essentially creating harmony in the physical, emotional, mental, and spiritual bodies.” *Leader 10*

Leaders emphasized the importance of treating the whole person.

“We don’t separate “this is an eating disorder and that is your spirit and that is your mood”...everything is connected. It’s the holistic [perspective] of the healing process...we approach a person as a person - the whole person.” *Leader 7*

Ayahwasca was described as facilitating simultaneous energetic and physical cleansing of the self. Purging was associated with a physical cleansing of the pain while icaros are associated with energetic cleansing.

“From an energetic and physical standpoint, which are totally intertwined, ayahuasca goes through and cleans the pipes, the energetic pipes, the physical pipes, and so forth, such that things are running clearly, efficiently and as they should.” *Leader 10*

Once the energetic and physical aspects of the eating disorder have been cleansed, one leader explained, the ayahuasca can help the participant identify and process relevant emotions.

“[T]he ayahuasca is, like, ‘The first thing I have to do is clean out this GI tract physically, because it’s full of garbage.’ So, the first ceremony was about the physical purging, like the physical cleaning, making it so that the deeper energetic work could happen. Now the second day, they had very revelatory experiences about some of the emotional triggers that were causing

them [to] eat in very self-destructive ways, and/or behave in very self-destructive ways.” *Leader 4*

Another leader remarked that this deeper emotion processing may involve more purging:

“[T]he potential [with ayahuasca] is to be able to connect with feelings that are not on the surface sometimes. When you are having an eating disorder it’s really hard to feel...[T]he connection with the feeling and realizing ‘Oh I have fear, oh I have shame, oh there is this.’ And then ‘OK, what are we going to do with that? OK, I can release that, I can send it away, I can purge it.’ And then it’s out.” *Leader 7*

As summarized by one leader:

“[A]yahuasca is uniquely therapeutically effective in the way that it simultaneously addresses the spiritual, emotional, mental, and physical aspects of a person all at once. And, um, its capacity to do that is what makes it extremely therapeutic.” *Leader 2*

4. Discussion

A growing body of research aims to explore the healing possibilities of ayahuasca, an Indigenous plant medicine, for a variety of health and mental health-related issues (Fotiou, 2012; Horák, Hasíková, & Verter, 2018; Lafrance et al., 2017; Liester, & Prickett, 2012; Loizaga-Velder, & Verres, 2014; Malcolm & Lee, 2017; Renelli, et al., 2018; Renelli, 2018). Despite the array of pharmacological and psychotherapeutic strategies that have been employed to treat

eating disorders, treatment outcomes remain poor, suggesting that existing therapeutic strategies are inadequate in treating the core symptoms of eating disorders (Davis and Attia, 2017).

Completion rates for interventions are low, while relapse rates are high, particularly for anorexia nervosa (Khalsa et al., 2017) with 46% of patients experiencing a full recovery from anorexia, a third experiencing only partial or residual features of the disorder and 20 percent remaining chronically ill for the long term (Arcelus et al., 2011, p.724). As a result, researchers from a variety of disciplines have begun to look at alternative healing modalities, including the healing potential of ayahuasca among individuals living with eating disorders (Foldi et al., 2020; Lafrance et al., 2017; Renelli, et al., 2018; Renelli, 2018). Our study contributes to this emerging field of research by examining the perspectives of ceremony leaders regarding the healing potential of ceremonial ayahuasca drinking among individuals living with eating disorders.

4.1 Comparing Theoretical Perspectives on Eating Disorder Presence

The majority (13) of leaders, interviewed in the context of this study, put forward a theory on eating disorders, while two leaders indicated that they did not have sufficient experience working with eating disorders to posit a theory. Theories put forward by leaders suggested that eating disorders are symptoms of a deeper issue in need of attention. This view is reflected in existing literature examining eating disorders causes, including a nursing study, which employed life-history interviews, to capture the perspective of women who had experienced and recovered from eating disorders (Patching & Lawler, 2009). Participant interviews led researchers to conclude that eating disorders are not conditions “in and of [themselves] but a symptom of deeper issues that if addressed, when the individual is ‘ready’ to make that choice, will lead to recovery (Patching & Lawler, 2009, p.10). This statement

resonates with the perspective of ceremonial leaders who stated that healing approaches should begin by supporting individuals to identify and understand the underlying causes of their eating disorder behaviour, as opposed to modifying eating behaviour. Nonetheless, other research supports an alternate view that nutritional or dietary treatment to support individuals to adopt healthy eating patterns and return to a healthy weight are essential components to eating disorder treatment and should comprise the beginning of treatment approaches (Wonderlich et al., 2003; American Dietetic Association, 2006; Cuerda et al., 2019). The leaders' lack of emphasis on nutritional or dietary treatment could be attributed to the severity of eating disorder presentations ceremonial leaders had encountered in ceremony, as individuals travelling to attend ceremonies may be less likely to have particularly advanced disease presentations.

While recognizing that eating disorder presence is reflective of a deeper issue, leaders acknowledged each individual who is suffering has a unique story which contains events experienced directly or intergenerationally which can be used to understand and provide context for their eating disorder presentation. This perspective resonates with the work of Patching and Lawler (2009) who reported that “despite clinical features being relatively consistent across individuals presenting for the treatment of eating disorders, the risk factors for the development of the conditions are vast” (p.15). This suggests that treatment responses must be sufficiently adaptive to respond to the uniqueness of each individual case while also recognizing commonalities across people who have experienced an eating disorder. In the current study, twelve leaders provided insight into what they believed the underlying causes of eating disorders to be, based on their personal eating disorder experience and experiences with ceremonial participants.

Experiential Factors

Eleven leaders suggested that eating disorders are rooted in trauma. While there was variance in the leaders' descriptions of what constituted a traumatic experience, traumatic events experienced in childhood and adolescence were noted by several leaders to be correlated to eating disorder presence. Generally, the leaders' descriptions of trauma reflected a spectrum of events that prevented individuals from authentically expressing themselves. While early research in the eating disorder field identified childhood sexual abuse as a common risk factor for eating disorders (Smolak & Murnen, 2002), current research has dramatically expanded this definition to include a range of traumatic experiences including neglect, sexual assault (rape and molestation), sexual harassment, physical abuse and assault, emotional abuse, emotional and physical neglect (including food deprivation), family dynamics, societal messaging, teasing, and bullying (Brewerton, 2007).

Trauma has been correlated with eating disorder behaviour in a significant body of research including work by Brewerton (2007), which in examining the relationship between eating disorders and trauma found that "when dealing with EDs, comorbidity is effectively the rule rather than the exception,"(p.286). In their study of 98 individuals living with eating disorders, Vanderlin et al. (1997) found that 25 percent reported having experienced a traumatic event in childhood. A similar study, by Rodriguez et al. (2005), reported that 45% of patients with eating disorders, had a history of sexual abuse or other forms of childhood abuse or trauma, while Carter et al. (2006) found that 8% of the inpatients in an eating disorders unit reported a history of childhood sexual abuse. In their study of women who reported both childhood physical and sexual abuse, Rayworth et al. (2004), found that these women were three times more likely

to develop eating disorder symptoms, compared to women who reported no abuse. Further, Corstorphine et al. (2007) found that among 102 individuals who met the clinical criteria for an eating disorder, those with more impulsive behaviours, including alcohol and substance abuse, cutting and other forms of self-harm, had both higher incidence of childhood trauma and poorer treatment outcomes. Finally, in their study of 73 Korean individuals living with eating disorders, Kong and Bernstein (2009) reported that individuals with poor treatment outcomes were more likely to have a history of childhood trauma. The literature on eating disorders and trauma appears to show variance in the strength of the correlation between the two. Reflecting on the perspective of ceremonial leaders, the majority of leaders identified a correlation between trauma and eating disorders, however, their perspectives on the types of trauma varied.

Emotional Factors

In relation to traumatic experiences, ceremonial leaders understood eating disorder behaviour to allow people to manage challenging emotional states connected to their past traumas. For some individuals, eating disorder behaviour was understood to suppress or avoid difficult emotions, while for others, eating disorder behaviour was thought to allow individuals to experience a sense of control over their bodies. In addition to neurobiological vulnerabilities (Kaye, 2008), there is growing consensus in the field that eating disorder symptoms such as restriction, bingeing and self-induced vomiting can serve to numb, suppress or regulate difficult emotional states (Dolhanty & Greenberg, 2009; Jack & Ali, 2010). Leaders described an individual's focus on and negative perception of, body image, alongside attempts to change their body, as manifestations of their embodiment of stress and/or negative emotions. Eating disorder behaviours offer temporary relief from these often-intolerable internal states. Five leaders also

suggested that eating disorder behaviour could be understood as an individual's attempt at healing, in that behaviours offer individuals temporary feelings of relief or wholeness. In this way, eating disorders can be understood to have an adaptive capacity in allowing individuals to manage challenging internal emotional state. Similarly, in their work with individuals living with eating disorders who had experienced physical abuse, sexual abuse or neglect, Schwartz and Gay (1993) reported that "eating behavior symptoms may function as a rational response to unmetabolized traumatic experiences" (p.65).

Ceremonial leaders also described diminished self-love and self-worth as a contributor to eating disorder behaviour. This observation is supported by numerous studies, including a study by Mantilla and Birgegård (2015) which found that low self-love/acceptance and high self-blame were associated with greater eating disorder symptoms across eating disorder presentations. In their study of female survivors of eating disorders, Patching and Lawler (2009) found that a lack of control and connectedness in relationships during childhood and adolescence, appeared to inhibit the ability of women to develop a strong sense of self. Further Björck et al. (2003) found that eating disorder patients presented with significantly more negative interpersonal profiles compared to controls.

Biological Factors

Research suggests a genetic component to eating disorders, with genetics thought to be linked to certain personality traits, including perfectionism, which place individuals at an increased risk of eating disorder pathology (Gual et al., 2002). In interviews with ceremonial leaders, genetic risk factors were not mentioned. Existing research suggests that genetics are underlying vulnerabilities that can increase the possibility that difficult life experiences will

result in eating disorder behaviour (Bulik, 2005; Kaye, Fuge & Paulus, 2009; Klein & Walsh, 2004). While genetic risk factors were not discussed by ceremonial leaders, the majority of leaders described having a screening process to ensure individuals living with particular physical and mental health conditions were not permitted to participate in ceremony.

Psychological Factors

Psycho-behavioural similarities between chronic binge eating and drug abuse has been noted in previous research (Davis, 2013), consistent with the perspective of ceremonial leaders that similarities exist between eating disorders and addiction. While ceremonial leaders focused on similarities in the underlying causes of both eating disorders and problematic substance use, such as childhood trauma, the literature in the fields of eating disorder and addiction appears to focus more on similarities in personality traits, such as impulsivity and neuroticism, between the two groups. Eating disorders can be conceptualized as an addictive behaviour highlighting that across eating disorder presentations, individuals reported scores on the Addiction Scales that were comparable to scores reported among individuals with alcohol and substance use disorder (Davis & Claridge, 1998). Davis and Claridge (1998) notes “some marked differences in the personality structure of...AN and BN women” (p.470). Specifically their research found that personality correlates of addictiveness differed between individuals with anorexia nervosa and bulimia nervosa. Characteristics among individuals with anorexia included obsessive-compulsiveness, introversion, and socially conformation while characteristics among individuals with bulimia included impulsive and antisocial traits.

Spiritual Factors

Building on the idea that eating disorders indicate a person is struggling with a deeper issue, six leaders also understood eating disorders to represent an internal spiritual void. Several leaders described how individuals may use food to fill this void, particularly in the context of binge eating disorders. Leaders argued that healing responses to eating disorders need to provide an opportunity for participants to reconnect to spirit and a spiritual community. In the literature on eating disorders, the connection between spirituality and eating disorder presence appears to be an emerging area of research, with several recently published stories examining yoga and spiritual psychotherapy in the healing and treatment of eating disorders (Currier et al., 2019; Ostermann et al., 2019a; Ostermann et al., 2019b; Domingues & Carmo, 2019). Researchers have also explored the prevalence of eating disorders in certain religious and ethnic communities, seeking to identify both protective and risk factors among cultural practices (Bachner-Melman & Zohar, 2019; King et al., 2019). While existing research has largely focused on the role of spiritual practices in the treatment and healing of eating disorders, this very focus suggests that a spiritual void or disconnect may be present in individuals living with eating disorders, as indicated by ceremonial leaders.

4.2 Comparing Perspectives on the Healing of Eating Disorders

Leaders stated that ceremonial experiences allow participants to identify the underlying causes of their illness. The altered states of consciousness induced through ceremonial ayahuasca consumption were understood to stimulate psychological processes of reframing allowing for the relief of stress, emotional pain, or trauma typically associated with eating disorders. Further, psychotropic effects of ayahuasca were understood to guide participants to introspect on personal

experiences allowing them to gain insight into how such experiences are connected to their eating disorder presentation.

In the literature it is recognized that understanding underlying causes of disease presentation is an important component to healing and recovery from eating disorders (Greenfield et al., 1991; Konstantakopoulos et al., 2011; Patching & Lawler, 2009). Building on this, leaders described ceremonial experiences as helping individuals to build tolerance for discomfort and negative emotions, which eating disorder behaviour may otherwise work to soothe or distract from. Further, the perspective of leaders that ceremonial experiences allow participants to identify the underlying causes of their illness aligns with perspective of ceremonial participants in Lafrance et al. (2017) and Renelli et al. (2018) in which participants reported that ceremonial experiences allowed for the processing of intense emotions and/or memories thought to be fuelling symptoms.

Six leaders highlighted that spiritual and transcendent experiences, often reported in ceremony, can provide healing to individuals living with eating disorders. Spiritual experiences can provide a sense of meaning and purpose in life, as well as a connection with a spiritual energy greater than oneself. This perspective is supported by research on the therapeutic effects of ritual ayahuasca use in the treatment of substance dependence reported that “ayahuasca-induced transcendental experiences transformed [participant] consciousness in a way that allowed them to overcome craving for drugs without effort” (Loizaga-Velder & Verres, p.70). Further, leaders reported that through ceremonial participation, individuals become connected to other individuals who are similarly interested in seeking healing and wellness. Leaders described how connection to individuals who are on their healing journeys can provide guidance, support

and hope to individuals who are just beginning their path to wellness. Monthly videoconferencing and social media groups provide an opportunity for connection to such a community to continue even after the retreat or ceremony experience.

Ceremonial experiences were also described as inspiring individuals to seek healing and wellness in a variety of ways. First, ceremonial components including dieta, a preparatory dieta required by some ceremonial leaders, as well as purging during the ceremony, were seen to provide participants with the opportunity to experience food restriction and purging in new and healthy ways. Further, three leaders spoke of instances in ceremony where participants had received direct messages from the plant to adopt healthy eating patterns and abandon habits such as bingeing or compulsive exercise. Such a message was seen as being more impactful than receiving a similar directive from a medical professional or family member.

Building on the idea that eating disorders affect health on multiple levels, including physical, spiritual and emotional levels, five leaders reported that ayahuasca facilitates simultaneous healing on each of these levels. Supporting this perspective, Fotio (2012) describes ceremonial ayahuasca drinking as being rooted in a holistic approach, which attempts to treat the whole person, recognizing that the physical, spiritual, mental and emotional aspects of self are intimately intertwined. Among ceremonial leaders, there was a general consensus that existing treatment options for eating disorders do not offer simultaneous avenues for treatment on these levels. Reflecting on the findings of Renelli et al. (2018), where ceremonial participants reported that compared to conventional eating disorder treatment programs, ayahuasca facilitated more holistic healing, the responses of ceremonial leaders appear to align with participant experiences. Increasingly, however, eating disorder treatment programs and eating disorder research have

recognized the importance of and adopted a more holistic approach to eating disorder treatment, including the inclusion of spirituality in the healing process (Richards, Hardman & Berrett, 2007; Wanden-Berghe, Sanz-Valero & Wanden-Berghe, 2010). Ceremonial leaders appeared to share a holistic understanding of health, which may not be found in biomedical settings.

All of the ceremonial leaders interviewed in the context of this study regarded ayahuasca as a valuable therapeutic tool in the treatment of eating disorders, among other mental and physical health disorders. Four leaders described ayahuasca as supporting healing in similar ways across disease presentations, where the medicine and ceremonial experience are understood to facilitate shamanic cleansing and restructuring of the energetic body. To treat illness, leaders described employing a variety of shamanic methods, including the recitation of prayers, the chanting or singing of icaros, playing instrumental music, the use of oils and incense and the use of other plant essences. As described by Lenaerts (2006), from a shamanic perspective all illness is understood to be “due to some problem within the complex network of intertwined wills that interconnects all living beings” (para. 94).

Comparing the findings of Renelli et al. (2018), which examined the experiences of ceremonial participants with both conventional eating disorder treatment and ceremonial ayahuasca, with the findings of this study, significant parallels exist in relation to the categories identified. Both studies identified that ayahuasca provides participants with deeper insights into their eating disorders and facilitates the processing of emotions associated with difficult or painful memories. Further, both studies identified that ayahuasca provides a spiritual component in the healing of eating disorders. Finally, one leader commented that the healing modalities of

ayahuasca in the context of eating disorders are still being established. This comment reflects the need for further research into the healing potential of this medicine.

Significant synergies exist between the perspectives of ceremonial leaders on the causes of eating disorders and on the healing mechanisms of ayahuasca. For virtually all of the causes of eating disorders identified by ceremonial leaders, ayahuasca presents a congruent healing modality. Leaders identified that eating disorder presence is indicative of a deeper issue, while also identifying that ceremonial experiences provide the setting and mental state to introspect and gain insight into root causes. Similarly, leaders noted that eating disorders affect multiple aspects of health. Complementing this, leaders described how ayahuasca supports the healing of the physical, spiritual, emotional and mental aspects of health. The leaders' responses illustrate the diversity of approaches to ceremonial ayahuasca drinking, as well as common shamanic philosophies that guide the leaders' perspectives on the healing potential of ceremonial ayahuasca drinking.

5. Future Research and Clinical Implications

While research done to date illustrates the potential of ayahuasca as a novel treatment for individuals along the eating disorder spectrum, additional research is needed to determine the appropriateness of ceremonial ayahuasca drinking among eating disorder presentations as well as contraindications for ceremony participation. Specifically, future research should investigate how individuals with eating disorders can safely participate in ceremonial ayahuasca drinking given the physical demands of preparation and participation in ceremony, coupled with the physical consequences of eating disorders, particularly among those with more advanced or severe disease presentations. Using data collected in the context of this study, but not yet analyzed, the

perspectives of ceremonial leaders in relation to these topics should be analyzed and described. Further, a potential study could examine the experiences of a group of individuals along the spectrum of eating disorders with a ceremonial treatment program, specific to eating disorders, with emphasis on categorizing the components of ceremonial preparation, experience and integration designed to ensure participation safety

Although the limitations of conventional approaches to eating disorder treatment are evident among completion rates, relapse rates, and mortality figures; significant wisdom and potential for healing remains in these approaches. Finding avenues to integrate aspects of conventional eating disorder treatment programs with aspects of ceremonial ayahuasca drinking could support the emergence of new and novel treatment options for individuals living with eating disorders. Further research should be done to delineate how conventional eating disorder treatment programs and ceremonial ayahuasca drinking could be integrated. Perspectives from individuals working in conventional eating disorder treatment settings, who are open to or have experience with ayahuasca, would provide important insight into such integration of such therapeutic approaches.

The participation of individuals from outside Indigenous communities in ayahuasca ceremonies has grown significantly in the past decades. The impact of this growing industry on Indigenous and Mestizo communities is not yet fully understood, although some community leaders have raised concerns about the influx of tourists seeking ayahuasca experiences. Described by Tupper (2008) as an exemplar of Indigenous knowledge, future research and clinical developments in relation to ayahuasca should be conscientious of potential negative

impacts on Indigenous communities and work to minimize potential harms and honour Indigenous knowledge systems.

6. Limitations

The qualitative results reported herein should be considered in the light of some limitations. Participation in the study was limited to ceremonial leaders who were able to communicate in English. Because of this, perspectives from ceremonial leaders from other cultural backgrounds, particularly Indigenous leaders, may not be captured in this data set. As cultural factors are thought to play a role in eating disorder prevalence, the conceptualization of eating disorders, outside of North America, may not be captured in the perspective of the leaders interviewed for this study. Further, while eating disorders are increasingly being identified in countries around the world, they continue to be most prevalent among Western nations. Because of this, ceremonial leaders from other cultural contexts may lack knowledge of eating disorders and of how to support individuals with eating disorders in ceremony.

Additionally, as ceremonial leaders are heavily invested in supporting healing through ayahuasca ceremonies, they may be biased towards its healing potential. Further, the majority of leaders voiced that they were not familiar with conventional eating disorder treatment programs and doubted the healing approach of the biomedical system generally. One leader stated “from what I’ve seen, there’s not a whole lot of success for eating disorders from conventional treatment...but maybe I’m biased because I don’t have a lot of belief in the medical system at all anyways.” Thus the perspective of leaders may be biased against towards the efficacy of ceremonial interventions and against biomedical interventions.

Given the legal status of ayahuasca, ceremonial leaders may have been reluctant to participate in this study given concerns about legal repercussions. Changes to the legal status of ayahuasca, could facilitate the collection of perspectives from a larger number of leaders pertaining to the research question. In turn, this would allow for a research sample with a greater diversity in terms of ceremonial leader training, experience and cultural backgrounds.

The interviews were conducted by different individuals than those who transcribed, analyzed and coded the interviews. A strength of the approach was that direct personal interactions between researchers and leaders did not impact the analysis of the transcripts, supporting a more objective perspective. However, by the same token, because the individuals conducting the analysis had not conducted the interviews themselves, more subjective elements of the interviews, including changes to interviewee tone or level of engagement may have been overlooked.

In relation to the leaders interviewed in the context of this study, the experiential basis from which leaders spoke varied. Only two leaders had completed formal training in eating disorder identification and treatment, with several leaders voicing that they limited knowledge and exposure to eating disorders. Conversely, the majority of leaders reported having personally experienced an eating disorder. Thus, the perspective of some leaders was based on their experience with a handful of individuals, while other leaders' perspectives stemmed from work with a greater array of individuals and personal experiences with an eating disorder, as well as experience with both conventional and ceremonial approaches to healing. Differences in experience and knowledge were evidenced by the variance among responses to interview questions, with some leaders having significant experience to share with others stating they did

not have the knowledge to provide a response. The knowledge of ceremonial leaders in relation to eating disorders may be an important consideration for individuals seeking healing in their selection of ceremonial guide.

As previously mentioned, research on ayahuasca and eating disorders is an emerging field of study. Consequently, there was limited research on the intersections of ayahuasca and eating disorder to inform our literature review.

7. Conclusions

Ceremonial leaders offered a nuanced perspective on eating disorders and on the healing mechanisms offered by ceremonial ayahuasca drinking among this demographic, with all leaders supporting ceremonial ayahuasca drinking as a potentially highly effective treatment approach for individuals living with eating disorders. Leaders identified eating disorders as: (1) signifying an individual was struggling with a deeper issue including past traumatic experiences, lack of self-love and self-worth and lack of spiritual connection; (2) having an adaptive function; (3) affecting health in multiple domains and (4) being similar to addiction. Further, some leaders reported they did not have a theory on eating disorders (5). Second, leaders reported that ayahuasca facilitated healing among individuals living with eating disorders through: (1) a general shamanic approach similar across disease presentations; (2) alterations to consciousness guiding participants to process and integrate underlying causes of eating disorder behaviour; (3) enhancing and/or reorganizing relationships with the self, with others, with creation and with their eating disorder; and (4) supporting holistic healing. As a controlled substance in many countries, significant legal barriers exist to realizing the use of ayahuasca in the treatment of eating disorders. Further work is needed to reduce the stigma surrounding the use of

psychedelics in the treatment of eating disorders and other ailments, in academic, legal and medical settings. Amendments to existing legal frameworks to support the use of ayahuasca in the treatment of eating disorders would greatly facilitate participant access.

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