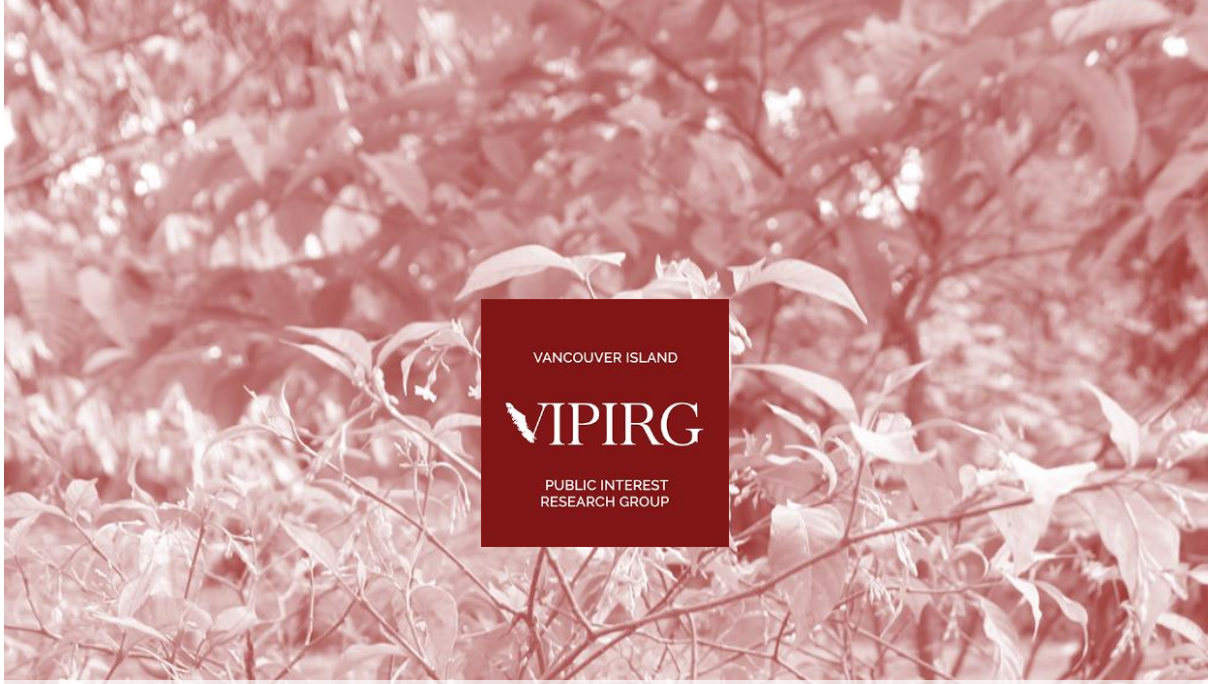
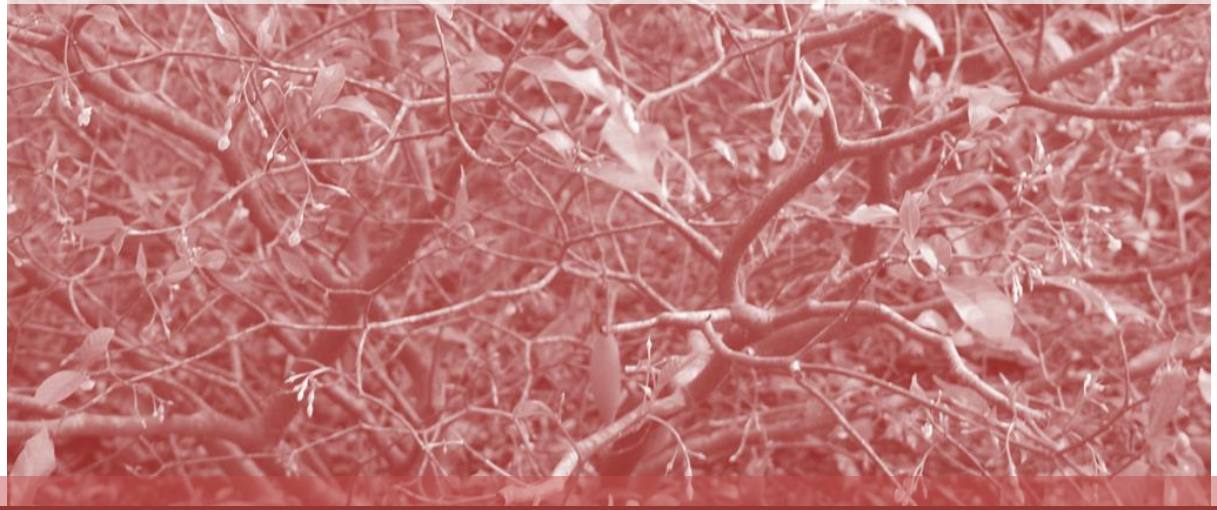


Exploring Ibogaine Treatment for Substance Dependence in BC.

A look into Ibogaine treatment facilities in British Columbia



20 November 2018

Prepared by Kia Pezesh and Anu Lotay

Vancouver Island Public Interest Research Group (VIPIRG)

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This work has been conducted on unceded and unsurrendered Coast Salish territories, specifically of the Lekwungen and W̱SÁNEĆ people.

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.

Contents

Acronyms

VIPIRG	Vancouver Island Public Interest Research Group
NMDA	N-methyl-D-aspartic acid
MAPS	Multidisciplinary Association for Psychedelic Studies
BC	British Columbia, Canada
EKG/ECG	Electro Cardiogram
SAP	Special Access Program
HCl	Hydrochloric Acid
TA	Total Alkaloid
SSRI	Selective Serotonin Reuptake Inhibitors

Definitions

QT interval: The time between the start of the Q wave and end of the T wave in the heart's electrical cycle.

Flood-dose: An extremely large and intense dose of iboga or ibogaine. Flood-dose trips usually last around 36 hours.

Smudging: A ceremony that usually involves the burning of certain herbs to purify the body and space. Smudging is a custom to certain indigenous cultures.

Executive Summary

Background

We conducted this study to shed light on ibogaine treatment for opioid dependencies. With the opioid crisis in British Columbia taking more lives by the day, exploring new treatment routes for afflicted individuals is a necessity. Evidence supporting the efficacy of ibogaine in treating substance dependency is apparent in the academic literature; however, not many have looked very deeply in the inner workings of the treatment facilities that are providing this medicine to those in need. This report seeks to close that gap in the literature by interviewing ibogaine treatment providers and individuals that have undergone ibogaine treatments themselves to gain a deeper understanding of the treatment process.

Methodology

Data was gathered for this report through telephone and in person interviews. The interviews were semi-structured and Interview data was recorded and transcribed. A total of 5 interviews were conducted for this report, all of which were conducted and transcribed by VIPIRG staff.

Key Findings

- Every treatment facility interviewed practice a different treatment procedure.
- According to participants in the study, ibogaine is an effective addiction interrupter, both physically and mentally.
- Facilitators advocate for increased support from government and medical bodies to aid in to help increase access to treatment.
- Stigmatized nature of procedure and substances mean that a potentially life-saving treatment is unavailable to vast majority of people suffering from opioid dependence.

Key Recommendations

- Further research on the efficacy and safety of ibogaine treatment is needed.
- Providing legal access to ibogaine treatment for at-risk individuals through Canada's Special Access Program (SAP) should be studied closely.
- Potential treatment programs should emphasize creating ibogaine-specific aftercare programs to help individuals fully integrate the work that has been done during their treatment in their day-to-day lives.
- Raising public awareness to reduce stigma and raise community support for ibogaine treatment is imperative.

1 Introduction

1.1 Background

Ibogaine is a naturally occurring indole alkaloid found in some plant species of the *Apocynaceae* (dogbane*)* family, most famously known to be found in the root-bark of the *Tabernanthe iboga* apocynaceous shrub, native to West-Central Africa. This psychoactive root-bark is traditionally used in the Gabonese Bwiti spiritual discipline in West-Central Africa, where it has historically been used as a hunger suppressant, mild stimulant, and aphrodisiac at low doses, and a visionary aid at high doses in Bwiti rite of passage ceremonies (Goutarel et al. 1993).

Ibogaine was first shown to interrupt human physiological and psychological signs of opiate dependency in 1985 by Howard S. Lotsof. He found that a single treatment was effective for approximately 6 months and a series of 4 treatments were effective for approximately 3 years (Lotsof 1985). Over the next two years, Ibogaine was discovered to be effective in interrupting cocaine and amphetamine dependency (Lotsof 1986) and poly-drug dependency (Lotsof 1992).

Further research on the chemical mechanisms of ibogaine was conducted in the 1990s, which found that ibogaine interacts with a wide variety of receptors in the brain, including the mu opioid, delta opioid, kappa opioid, 5HT2, 5HT3, muscarinic1, muscarinic2, norepinephrine, sigma-2, nicotinic, dopamine, and serotonin uptake sites (Sweetnam et al. 1995). It was also discovered that ibogaine interacted with the N-methyl-D-aspartic acid (NMDA) receptor complex by acting as a competitive inhibitor of the NMDA antagonist [3H]MK-801 (Popik et al. 1994; Glick et al. 1998). MK-801 has been shown to attenuate morphine and alcohol tolerance, and attenuate sensitization to stimulants, thus this mechanism of action of ibogaine is believed to play a key role in some of its antiaddictive properties. This broad spectrum of receptor interactions that ibogaine has on the brain may be in part responsible for ibogaine's ability to interrupt a variety of chemical dependencies (Popik et al. 1994; Sweetnam et al. 1995). It is also important to note that despite its binding to multiple opiate receptors, ibogaine does not act as an opiate (Woods et al. 1990) and does not cause dependence or precipitate withdrawal signs after use (Aceto et al. 1991).

Since Lotsof's trials, several preclinical and clinical studies on ibogaine's antiaddictive properties have been carried out which contribute to his initial findings. For example, Glick et al. (1991) found that a single dose of ibogaine significantly reduced self-administered intravenous morphine intake in rats, even after the ibogaine should have entirely left their system. Similar results were found in cocaine self-administering rats, with an additional finding that rats treated with ibogaine once a week for three weeks showed significantly longer lasting results, suggesting that ibogaine can be used as a long-term interrupter of cocaine dependence (Cappendijk et al. 1993). More recently, the Multidisciplinary Association for Psychedelic Studies (MAPS) has funded two human trials of ibogaine treatments for opiate dependence with a 12-month post-treatment follow up. The results of these two studies demonstrated ibogaine's ability to substantially reduce opioid withdrawal signs, and either catalyse a complete cessation of opioid intake or to achieve a sustained reduction in opioid intake for dependent individuals for whom conventional treatments have been unsuccessful (Noller et al. 2017; Brown et al. 2017).

Ibogaine's anomalous therapeutic benefits however do come with some specific risks. A study from Koenig et al. (2014) shed light on a cardiotoxic aspect of ibogaine that can produce life-threatening cardiac arrhythmias. This is due to its temporary prolonging of the QT interval, which paired with pre-existing heart conditions can sometimes cause death (Koenig et al. 2014). It is also well known that taking methadone can cause a prolonged Q-T interval (Vieweg et al. 2013). For this reason, the importance of completing a full electrocardiogram (ECG) test prior to taking ibogaine cannot be stressed enough. Despite the associated risk, ibogaine is a relatively safe drug to ingest, and is well tolerated by the human body, as shown in a double-blind placebo-controlled safety study by Glue et al. (2016).

Ibogaine is usually administered in one of the following three forms: iboga root-bark, ibogaine-TA (total alkaloid), or ibogaine-HCl (hydrochloride). Iboga root-bark is just that – the bark of the roots of the Tabernanthe iboga plant, but a simple extraction using vinegar will result in ibogaine TA, which stands for total alkaloid. This first level of extraction still contains the full spectrum of alkaloids present in the iboga root-bark. A second level extraction is also possible, using hydrochloric acid to isolate and extract ibogaine, the plant's most well-known alkaloid (Brown et al. 2017).

1.1.1 Provincial Statistics

The BC Ministry of Public Safety & Solicitor General (2018) released two publications in August 2018, revealing a record number of 1,450 illicit drug overdose deaths in BC in 2017, with approximately 84% (1,212) of the cases involving the detection of illicit fentanyl. Note that this study excluded any deaths where the fentanyl was prescribed or if any intent of self-harm was determined (non-accidental). The same two reports revealed that Vancouver, Surrey, and Victoria were the 3 cities in BC with the highest rate of illicit drug and fentanyl related overdose deaths, in their respective order. To add to these statistics, an older publication from the BC Ministry of Justice (2013) reported 72 prescription opiate-related deaths in 2012. This is, unfortunately, the most recent statistic published by the BC Ministry of Public Safety & Solicitor General for prescribed opioid-related deaths. In 2018, the Public Health Agency of Canada (2018) released a national report of apparent opioid-related deaths in Canada, reporting 3,987 opioid-related deaths in 2017, of which 92% were accidental. Of that 92%, 72% were reported to be deaths involved with fentanyl or its analogues. Following the subsequent arithmetic, the number of fentanyl-related accidental overdose deaths in Canada comes up to approximately 2,641 deaths in 2017. By comparing this value to the previously mentioned studies from the BC Ministry of Public Safety & Solicitor General (2018), we can see that British Columbia accounts for approximately 46% of the total fentanyl-related accidental overdose deaths in Canada. For this reason, the importance of urging the BC and Canadian government to fund further clinical trials on ibogaine with larger sample sizes for the treatment of chemical dependencies cannot be stressed enough.

1.1.2 Ibogaine Treatment in Canada

Ibogaine was an unregulated until 2017 when it was added to the Prescription Drug List (PDL)[1] by Health Canada (2017). Because it was not explicitly illegal in Canada, many Americans sought treatment here. Ibogaine was largely distributed through distributors selling it under various under drug names (such as Ramogen). Due to the ambiguous and changing legal status of ibogaine, addiction treatment providers who provide treatment with ibogaine are in a precarious position, as are their clients. While ibogaine has been associated with 19 deaths between 1990 and 2018, most of the patients had pre-existing conditions which are contraindicated for ibogaine (Levinson 2018). It is for this reason that many ibogaine treatment

providers ensure that clients have no pre-existing conditions, and often employ medical professionals to monitor cardiovascular health during treatment.

The ibogaine provider industry is primarily run by former addicts or those who are involved in the alternative and natural therapy industry, which is often seen as a barrier to medical legitimacy for the treatment. Google has also banned the use of ibogaine in it ad-words program preventing many potential clients from finding out more about the treatment and reducing business for providers (Levinson 2018). Coupled with the lack of clinical data on its efficacy, ibogaine treatment remains on the margins of addiction therapy. However, anecdotal evidence abounds, especially on the Internet and through other media such as documentaries by VICE and on YouTube (Squier 2014). This has led individuals to seek out unlicensed treatment in Canada and Mexico, and an underground treatment network has risen to fill the gap of knowledge and access in the mainstream.

Many unlicensed ibogaine treatment centers exist in Canada and the cost of treatment varies depending on the provider and severity of dependence and complexity of case, though typical costs range from $2000-$10000 CAD. A typical treatment begins with an initial introduction and consultation process which involves discussing pre-existing conditions, risks and benefits. Some providers conduct tests or require the client to have tests conducted in medical labs for cardiac health and liver function (Noller et al. 2017). The therapeutic dose for treatment is called a *flood dose*, and recipients require 24-hour, one-on-one monitoring to ensure their vital signs are good throughout the procedure or ceremony and that they do not have any adverse reactions. The flood dose pushes the individual's body to extreme limits. Because of this, competent providers ask clients to obtain an electrocardiograph (EKG), and have a certified cardiologist interpret the results to make sure the client's heart can handle the 2–3 day high-intensity experience the flood dose creates (Noller et al. 2017). Once these tests are cleared and informed consent and/or waivers have been obtained, the treatment provider will administer doses of ibogaine until detoxification, and elimination of physical dependence, is evident without adverse outcomes.

Ibogaine is an addiction interrupter, meaning that it can be likened to a "reset button" for an addict's brain, providing an opportunity for the individual to remain sober without physical dependence impeding sobriety. However, it is not effective for everyone (Noller et al. 2017). It is typically given in the form of a capsule, but other methods exist, and some include administering a large dose of ibogaine (the isolated alkaloid) with smaller doses of iboga (the raw plant). Providers are hesitant to disclose where and how they acquire ibogaine, though many likely purchase it through online sellers, often on the dark web. Ibogaine is mainly found in Gabon, though it's ecological environment there is threatened due to deforestation and other factors; so, much of the ibogaine found overseas comes from surrounding countries, mainly Cameroon, Congo and Angola (Dickinson 2015). Some providers are trained in traditional Bwiti rituals with shamans and use folk Bwiti healing rituals in treatment. Ibogaine can also induce psychedelic states for some clients, which providers and clients often report is an important part of the treatment process. Due to its psychoactive properties and strength, it is important that ibogaine is only used with an experienced guide or facilitator who can provide reassurance, support and medical assistance when necessary. It takes years of study and apprenticeship before shamans or clinical providers can dispense iboga or ibogaine to others.

In order to maintain sobriety, aftercare is also important. Typically, clients seeking ibogaine treatment have experienced other treatments and often have one or more underlying conditions comorbid with substance dependence which can arise following detoxification after ibogaine. Therefore, providers recommend emotional therapy and other forms of treatment. In one study, the individuals who remained clean following treatment with ibogaine were all

seeking therapy on a regular basis. Providers also recommend maintenance treatments after 12-24 months after the initial treatment. Unfortunately, ibogaine treatment providers often have difficulty tracking down and checking up on previous patients, and the high cost of the treatment means that long term progress reports are difficult to come by (Noller et al. 2017).

1.2 Objectives

The intent of this study is to raise public awareness of alternative medicines and treatments for chemical dependency disorders; specifically, ibogaine. In this report, we take a deeper look into the therapeutic qualities of ibogaine and the current underground treatment infrastructure that exists for those who seek treatment in BC, Canada.

With this community-based research report, we aim to create an accessible resource of knowledge on the topic of ibogaine treatments, and educate those who have either never heard of, or have a stigmatized understanding of the drug. We also seek to learn about the ibogaine treatment process from treatment facilitators and from those who have undergone ibogaine treatment for chemical dependency disorders.

2 Methodology

2.1 Research questions:

1. What is the ibogaine treatment process?
2. Is ibogaine therapy an effective treatment option for opioid dependent individuals?
3. What are the experiences of individuals involved in ibogaine treatment?

2.2 Research Design

The research questions in this report were answered through qualitative research methods. A small number of in-depth, semi-structured interviews were conducted with ibogaine treatment providers and their past clients, the interviews were recorded and then transcribed. In total, a qualitative semi-structured interview was conducted with 3 ibogaine treatment providers based in BC, and 2 individuals who had undergone treatment with one of the three providers. Qualitative analysis of the interviews was used to answer the research questions in this report.

2.3 Interviews

Interviews were held with a total of 5 people to acquire the qualitative data used in this report. The aim of the qualitative semi-structured interview format used was to gain a first-hand understanding of the experiences of those participating in the underground ibogaine treatment industry in BC. This included 3 ibogaine treatment providers, all of whom manage separate facilities, and 2 previously long-term opioid-dependent individuals who have undergone treatment at one of the three facilities.

Of the 5 interviews, 1 was carried out in person, whereas the remaining 4 interviews were conducted over Skype video or audio calls. The semi-structured format of the interviews was chosen to keep the interviews as conversational as possible. Due to the personal nature of the experiences that were shared, we decided that a conversational interview would be the best format for which we could receive the most well-rounded accounts of our interviewee's experiences. All participants were asked to sign an informed consent form prior to their interview, in which anonymity was guaranteed, due to both the legal status of ibogaine and the deeply personal nature of the experiences shared. Interviewees were aware of the general topics to be covered prior to the interview taking place.

2.4 Sample

The convenience sample selected for interview in this report were chosen based on their relevant experience with opioid detox treatments using ibogaine. The only providers/facilitators chosen for interview were those whose facilities had specific experience providing iboga or ibogaine treatment for individuals with opioid substance dependencies. Once the interview with the facilitator was conducted, they were asked to put is in contact with some of their past clients. Of those clients who we contacted, everyone who was comfortable sharing their experiences of chemical dependency and iboga or ibogaine treatment were welcome to participate in the interview process.

2.5 Data Collection & Analysis

The data collection and analysis were performed by VIPIRG's research staff. Of the 5 interviews, 4 of them were held over Skype, and 1 was held face-to-face. All interviews were conducted in English and lasted approximately 45 minutes on average. The audio from the interviews was recorded then manually transcribed into text, which was then used to answer the given research questions.

2.6 General Ethical Criteria for VIPIRG Research Projects

VIPIRG's research projects must have a public benefit, reflect honest findings, and treat participants and the surrounding environment fairly. Additionally, VIPIRG does not make data available for secondary research unless participants have expressly consented to this. More information can be found on our website at http://www.vipirg.ca/ethical-guidelines/

2.7 Limitations

Many limitations are present in this study. We were only able to access a very small sample size (3 facilitators, 2 clients). A large reason for this was due to the Canadian government's recent decision to list ibogaine as a substance under the Canadian Prescription Drug List which is not authorized for use (Health Canada 2017). This change has caused many ibogaine treatment facilities to shut down to avoid legal repercussions or to become very secretive about their operations, unwilling to participate in any interviews. Many individuals who we reached out to who have undergone iboga or ibogaine treatment did not return contact. We can only assume that the legal status of the treatment, the extremely personal nature of the experience, and general unwillingness to revisit or share possibly difficult or traumatic experiences resulted in the lack of responses we received from those we attempted to contact.

2.8 Anonymity and Abbreviations

In the following section, we will be referring to the data gained through the interviews to answer the stated research questions. Since complete anonymity was granted to all participants of the study, they will from this point on be referred to using the following case IDs: the 3 facilitators who have been interviewed will be referred to as F1, F2, and F3, while the 2 clients interviewed will be referred to as C1 and C2.

3 Results

3.1 What is the ibogaine treatment process?

As shown in Table 1, each of the three facilitators interviewed have a different style of treatment that they practice. The main differences in their respective practices being the dosing scheme, secularity, and length of treatment. For example; F2 runs their sessions with no integration of traditional Bwiti aspects and focuses far more on the physical detox, whereas F3 focuses largely on the spiritual aspect in conjunction to the physical, and F1 finds value in playing traditional Bwiti music, but otherwise keeps their sessions mostly secular. F2 also holds longer

treatment sessions compared to F1 and F3, and exclusively uses low dosing in their treatments, compared to F3 always using a flood-dose and F1 who prefers to use flood-doses if the client's health circumstances allow it.

Both of clients interviewed who have participated in ibogaine treatments, C1 and C2, have been successfully treated by one of F1 or F2.

Table 1: Comparing the Treatment Process of 3 Separate Facilities

	F1	F2	F3
Initial Contact with Client	Client contacts F1 by phone or email	Client contacts F2 by phone or email	Client contacts F3 by phone or email
Specified Pre-Conditions	Off methadone for at least 10 days, preferably for 3 weeks prior to treatment. Recommends switching to a short-acting opiate in that time. Must also not be currently taking any SSRI's. Will not treat anybody with very symptomatic bipolar or schizophrenia. Client must also be personally motivated to seek treatment, and not just pushed into trying it by family and friends.	Not specified	F3 does not treat anyone who is currently on methadone, suboxone or any SSRIs or anti-depressants. Their clients are required to get off all of the above substances for a minimum of 3 weeks to a month to be considered for treatment. F3 suggests for those currently on methadone or suboxone to ask their doctor to switch them to Kadian (morphine sulphate extended-release), a long-lasting form of morphine that is "more interfaceable with iboga".
Pre-Treatment Screening Process	Full bloodwork and electrocardiogram (EKG) tests must be submitted to be reviewed by the facilitator's medical team. A prolonged QT interval in the EKG test results may not allow for a regular treatment route; however, F1 uses a "low and slow protocol" for clients with prolonged QT intervals so that they can still safely receive treatment. If any acute infections show up in the blood work, they must be adjusted prior to treatment.	F2 start the screening process with a long phone or Skype call with the client. The client will then fill out an application describing their current drug use (including prescription drugs), along with medical test results. These results will be run past the nurse at F2's practice, at which point a treatment plan is then worked out.	Every client at F3's practice must first fill out a 5-page questionnaire, get blood tests, and an EKG done to see "where their body's at". After this, F3 puts the client on a supplement program, and begins their spiritual journey by asking them "certain questions around why they think they're using to begin with, what type of pain they're affected by, [and] what are their triggers".
Substitute Opiate Provided?	Oral morphine provided by F1's medical team to stabilize the client for a few days prior to treatment.	Oral morphine is provided to stabilize the client as soon as they come in. Client is kept on oral morphine for a few days prior to ibogaine treatment.	Not specified

Form of iboga used in treatment (ibogaine-HCl, ibogaine-TA, or iboga root-bark)	A combination of ibogaine-HCl and ibogaine-TA are primarily used in F1's treatments.	A little bit of ibogaine-TA, but mostly ibogaine-HCl is used in F2's treatments.	Iboga root-bark and ibogaine-TA.
Initial Test Dose	Initial test dose with 5mg/kg of ibogaine-HCl. If there's no allergic reaction, a second test dose of 15mg/kg will be administered a couple of hours after the first.	Initial test dose of 2-3mg/kg of ibogaine.	"Very low," but an exact amount was not specified.
Dosing Scheme	Start with low-dosing to "ween" the client off opiates. This is done by providing the client with a low-dose of ibogaine in the morning, instead of morphine, when withdrawal signs begin to surface. This is generally enough to make "withdrawals disappear" for anywhere from 4-6 hours. This first low dose is used to gage the client's sensitivity to ibogaine. Once the ibogaine wears off, F1 goes back in with morphine, but the client already only requires "about half as much morphine" as before. This is done for a couple of days in a row to get the client on as little morphine as possible, at which point a registered nurse is brought in and the full flood-dose is performed. The flood dose is a 36-hour long ibogaine experience, for which the nurse will monitor the client for the entirety of the experience. Generally, one- or two-days' worth of "booster doses" of ibogaine are provided to the client post-flood to make sure no withdrawal signs surface. For clients with an abnormally long QT interval, the flood-dose is avoided, and instead further low dosing is performed.	F2 treats their clients in a "slower, more methodical way" compared to flood-dose treatments. This treatment includes many low doses of ibogaine over a longer period, described by F2 as "not a flood, but a saturation" of ibogaine. F2's dosing scheme includes daily doses of ibogaine in the morning which lasts for 5-6 hours, then puts them "back on morphine, but it's always a lot less morphine than the day before". Using this method, the client will receive their final dose of morphine 10 days into treatment, and it's normally only 10mg. With this method, F2 claims to more safely "titrate" their clients off morphine than they would with a flood-dose treatment.	F3 generally has 2-3 iboga or ibogaine sessions with their clients in a 10-day period. These sessions start with a very low dose and work their way up each time, but all of them will reach a flood-dose.
Length of Treatment	10 days	2 weeks	10 days

Cultural Components	F1 tries to keep the experience as secular as possible but sees real benefit in playing traditional Bwiti music during the sessions. A small secular ceremony is however performed at the start of the flood-dose session; honouring the directions, the ancestors, and doing some smudging.	In F2's treatments, they like to say a little prayer over the client's last dose of morphine but is otherwise kept strictly secular.	After training under a Bwiti shaman for 3.5 years, F3 received the 'OK' to work with the medicine on their own. With their shaman's blessing, F3 heavily integrates traditional Bwiti ceremonies into their practice, and finds extreme benefits in doing so.
Post-Treatment	F1 follows up with their clients periodically and encourages clients to call them every 10 or 7 days to check in but is clear about not providing in depth post-treatment integration work.	F2 encourages their clients to choose a drug and alcohol counsellor to work with post-treatment and makes some suggestions with that. F2 emphasizes the importance of a good recovery plan and aids their clients in building a plan that will fit their needs. All clients that receive treatment from F2 will also be contacted post-treatment to see how things are going and are always welcome to reach out to F2 for advice.	F3 tries to keep in contact with all their past clients and helps suggest different therapies and modalities they can keep in contact with.

3.2 Is ibogaine therapy an effective treatment option for opioid dependent individuals?

Table 2. Method and number of clients treated by each facilitator interviewed.

	F1	F2	F3
Approximate success rate	65%-75%	Not Specified	Not Specified
Favoured method of treatment	Traditional Bwiti music playing during sessions. Start with a low dose and work up to a flood-dose if the client's health allows it; otherwise, continue with low dosing to taper the client off morphine.	No traditional Bwiti aspects integrated into treatment sessions. Low dosing treatment to taper the client off morphine.	Traditional Bwiti ceremonies. Start with a low dose and work up to a flood-dose.
Approximate number of people treated	~200 people in the last 4 years	~200 people in the last 7 years.	>300 people in the last 4 years.

Table 3. Details and accounts of clients who received ibogaine treatment.

	C1	C2
How did you hear about iboga and/or ibogaine?	Joe Rogan Podcast with guest Aubrey Marcus.	First heard about it on TV.
Pre-treatment drug habit	Really heavy fentanyl and Oxycontin habit. $500-$700 a day spent on drug habit.	A quarter and a point (3.5g) of heroin by injections a day. $240-$250 a day spent on heroin, which eventually transitioned into fentanyl. Used opioids for 24 years.
Method of treatment	C1 first took on a flood-dose treatment over 2 years ago, which helped them stop taking drugs recreationally, but still found themself needing methadone maintenance. After taking the advice of F1, C1 tapered their methadone intake down as low as possible, then treated with 1 micro dose of ibogaine again, 1 year	Low dose tapering administered by F2. C2 was first switched onto taking oral morphine, then slowly reduced the amount of daily morphine intake using daily ibogaine dosing. C2 had two separated treatment sessions as an anxiety attack mid-way through the first treatment prompted a temporary pause in the treatment, which was then picked up a little less than 2 months later.

	ago, to help fully recover from dependence.	
Currently taking any form of narcotics?	No	No
Length of time clean from narcotics (to date of interview, August 2018)	1 year	4 months

3.3 What are the experiences of individuals involved in ibogaine treatment?

In each facilitator interview, the interviewee was asked how ibogaine works, based on their personal anecdotal experience and observations. Table 4 includes direct quotes from their responses. Clients who had undergone treatment were asked to recount their experience post-treatment, as shown in table 5.

Table 4. How Ibogaine Works Subjectively, According to Treatment Facilitators.

	How does ibogaine treatment work?
F1	*"I often use this metaphor for all good psychedelic psychotherapy but especially for iboga: It's almost like we see the world through a filter, we see the world through a pane of glass, and as we live, that pane of glass gets dirty, and dirty, and dirty, and it gets so dirty that we don't even realize it's dirty; we don't even realize we're looking through a dirty pane of glass, we're so used to it. And a good psychedelic psychotherapy session, especially Iboga, it seems like it cleans that pane of glass from the inside-out. I wouldn't say it necessarily adds anything to anyone, it just takes away all the shit that's been holding that person back so that they can function at a more pristine level as it were."*
F2	*"Well, scientifically… a lot of it seems to remain really a mystery as to what its actions are. But what I see with it, well my thing is I like to work with opiate addicts because I can see what's happening, and they can see what's happening. Like 'Oh, yesterday I was on 600mg of morphine, and now I'm on 400. Oh, this is working', you know?... So, they're the people I like to work with the most. But it's an addiction interrupter. People call and say, 'what's your success rate', but it varies widely, and I can have my own assessment whether someone is ready for treatment or not to a certain degree, but it is an addiction interrupter and people have to realize that."*
F3	*"We live in two different worlds at the same time – the physical and the spiritual. Iboga works on the physical body and cleanses the physical body and it also cleanses the spiritual body. So that's how it works, right there."*

	"It's very removed from this culture and society. You're learning about a new form of looking at the world. Iboga gives you the ability to drop all the thinking processes and allows you to just see what's real – present. So, it allows you to connect with your soul which is you know, your life essence. Aside from all the circumstances and the experiences that you have acquired, it allows you to see for who you are, not for who you think you are. So, by stripping away all the falsities of your life, you begin to live your truth, and when you begin to live your truth, your life begins to take a shape and form better suited to your purpose – just to be happy."

Table 5. Experience Post-Treatment

	Post-Treatment
C1	*"I had a lot of clarity at the end of it, I remember my mood was like so positive for like weeks to follow really. Finally being off methadone, just being back 100%, that was pretty valuable to me."*
C2	*"I'm just back, you know? It's just quite astonishing, really. But, with that, comes, I kinda have to leave my old life… I'm not the same person anymore, so it's kind of like a loss and a gain, which is very difficult."*

4 Discussion

Conducting surveys with those who have participated in the underground ibogaine treatment industry has given us a glimpse into the inner practices of ibogaine treatment facilities in British Columbia. The most interesting finding being that all three facilities interviewed employ different methods of practice, all of which were claimed to successfully provide treatments for individuals suffering from opioid dependency disorders. This diverse selection of treatment centres present in BC is particularly important in terms of accessibility as individuals seeking out ibogaine treatment are presented with a selection of treatment styles to match to their personal needs. During the interviews, treatment facilitators also emphasized the fact that ibogaine is not a miracle cure to addictions; it is an addiction interrupter, and the importance of pairing it with post-treatment aftercare facilities and groups was a repeatedly mentioned in every interview.

Through the conducted interviews and available academic literature, it is apparent that ibogaine treatments can effectively interrupt substance dependency for some individuals. However, despite having multiple studies and personal accounts to represent the efficacy of ibogaine treatments, it is still crucial that further clinical trials are conducted. With ibogaine's addition to Canada's Prescription Drug List[1] and ensuing restrictions on its compounding, administration and use (Health Canada 2017), we hope that the Canadian government will choose to fund further research in the field and work to integrate this treatment option into its policies, especially considering its potential in combatting the current opioid epidemic in Canada.

The main limitation of this report is the significantly small sample size in both facilitator interviews (n=3) and client interviews (n=2). A large reason for this limitation is that for one, many ibogaine treatment facilities in BC closed their doors to the public after ibogaine's addition to Canada's Prescription Drug List in 2017. Among the facilities that were still running despite the now illegal status of providing ibogaine, not all were equipped to treat opioid dependent individuals, and instead focused purely on psychospiritual ceremonies. This left us with only a handful of publicly known facilities that provide ibogaine treatment for opioid dependency disorders, of which 3 enthusiastically agreed to contribute in any way they could. We received contact information for 3 past clients from every facilitator interviewed; however, only 2 were willing to participate in interviews.

5 Recommendations

Based on the results from the literature and interviews, the following recommendations are provided:

- The Canadian government should fund further clinical trials looking into the short-term and long-term efficacy of ibogaine on the treatment of substance dependency.
- Research on ibogaine's cardiotoxic effect and on mitigating possible risk associated with treatments need to be conducted.
- Until ibogaine is implemented and accepted by the Canadian medical system, at-risk individuals who have already tried conventional treatment routes should be granted legal access to ibogaine treatments through Canada's Special Access Program (SAP).
- Substance dependent individuals who cannot afford ibogaine treatment should be allowed access to treatments with the help of government funding.
- With further media coverage on ibogaine, public awareness can be raised significantly while helping reduce stigma that has been historically associated with using psychedelic drugs to treat substance dependency disorders.
- Having ibogaine-specific post-treatment aftercare groups and programs may greatly influence the long-lasting effectivity of the treatment.
- Ibogaine treatment facilities should receive funding from the government to help pay for medical equipment and a full medical team to both minimize risk associated with treatment and reduce treatment costs, making the treatment safer and more accessible to those who need it.

6 Notes

1 From Health Canada (2017):
Ibogaine is a psychoactive alkaloid extracted from the root bark of Tabernanthe iboga, a Central West African rain forest shrub. Ibogaine is not authorized for use in Canada.
Health Canada has received serious and fatal adverse reaction reports associated with the use of ibogaine. As a result, in June, 2015 Health Canada issued a risk communication to advise the public not to use ibogaine. Health Canada is adding ibogaine to the PDL to mitigate the potential harms associated with the use of unauthorized ibogaine products.
The addition of ibogaine to the PDL would allow Health Canada to provide more effective risk-based oversight of ibogaine: by requiring sale only pursuant to a prescription, by restricting the compounding of products containing ibogaine, and by providing enforcement agents with increased authority to seize products which do not conform with the Canadian Food and Drugs Act and Regulations

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