

# ***LONG TERM OUTCOMES OF ADDICTION TREATMENT AT TAKIWASI CENTER***

## ***Background***

Drug addiction is a widespread public health problem that impacts on every culture and society around the world. It expresses in extremely different ways depending on a complex network of cultural, genetic, environmental, social and economical factors. There is also one less considered factor that merits discussion and might explain the high prevalence of drug addiction. It comes together with a different way of understanding the behavior behind psychoactive substance abuse. We consider that this behavior is, to some extent, an unconscious reaction to a call for connection with transcendental experiences (TE). The need of such experiences is inherent to human beings and associated to a legitimate search for “meaning of life”. In this context, we understand substance abuse behavior as a wrong and self-destructive way towards a genuine need.

Psychoactive substances have ever played a role in almost every human culture as a facilitator of TE. Anthropologists have largely written about the approach usually followed by human beings to TE. In between the TE and people, three elements can always be found: a ritualized process and context, a catalyst which facilitates altered states of consciousness (ASC) and TE (for example a psychoactive plant), and an experienced person who guide the process and takes care of participants. These three elements embody the practices to access ASC as a way to communicate with gods or with the invisible world, acquire knowledge and to heal from physical and psychological diseases (Schultes and Hofmann, 1993; Sueur et al, 1999; Dobkin de Rios, 1990).

From an evolutionary point of view, the worldwide widespread presence of an enormous variety of techniques and strategies to induce ASC, (from the use of psychoactive substances to fasting and meditation), is indeed a demonstration that human populations have preserved and made them evolve since the very beginnings of their histories.

Such practices have attracted the attention of researchers from different disciplines.

In the last decades many studies have addressed the effects of psychoactive substances in human mental health. A pioneering observational study was carried out on alcoholic people treated by Peruvian traditional healers with San Pedro cactus (Chiappe M, 1977). In this follow up survey, the author reported a recovery rate of around 60% after five years of being treated.

Other interesting results on the effects of psychoactive plants were reported with populations who currently use them as part of their religious practices. One recent example is the study on Peyote use by Navajo natives of the Native American Church (NAC). This population is unique to address the question of long term effects of the use of psychoactive substances because they consume Peyote without consuming other substances (even alcohol consumption is forbidden according to their religion). Three groups were compared: a group of NAC members who'd ingested Peyote at least 100 occasions, a group of former alcoholics who were at that moment at least 2 months sober, and a control group of subjects that reported a minimal history of substance use. The researchers used a battery of 10 tests to evaluate psychological, emotional and cognitive aspects, among which memory functioning, life satisfaction and attention-action. The striking conclusion of the study was that the former alcoholic group showed a significant decline on all the mental health scales, while the Peyote group didn't. The last even scored significantly better than the control non-consumer group on the scales for 'general positive affect' and 'psychological well-

being'. The outcomes of the neuropsychological tests revealed a similar pattern (Halpern et al, 2005).

Other interesting study was conducted by an international consortium of researchers from Brazil, Finland and the United States, on members of the Brazilian church Uniao do Vegetal (UDV) who use the psychoactive beverage Ayahuasca as sacrament. A series of psychological, behavioral and learning tests were applied to 15 people who had drunk Ayahuasca hundreds of times for more than 10 years and to an age-matched control group who had never drunk the psychoactive beverage. Surprisingly, the Ayahuasca group scored significantly better than the control group in most of the applied tests. Another remarkable observation comes from the diagnostic interviews performed to participants. Two individuals from control group had current diagnosis of alcohol abuse and hypochondriasis while none of the UDV members showed evidence of any psychiatric disorder. The unexpected finding was that most of the Ayahuasca drinkers had previous histories of psychiatric diseases before becoming active members of UDV church (Grob et al, 1996).

This study constitutes the first well documented evidence for the therapeutic potential of Ayahuasca in mental health disorders. As a concluding remark, it's important to note that the presented results cannot be generalized to other psychoactive substances or to the same substances but taken out of the religious setting as used by UDV and NAC members.

At Takiwasi Center we have been applying for more than fifteen years a therapeutic model in which Ayahuasca is an important therapeutic tool. The treatment protocol has proved to be effective in all kind of substance abuse problems. The model is based on the attempt to harmoniously integrate selected interventions of Modern Psychology and Medicine, with key concepts and healing techniques from the Amazonian Traditional Medicine. During the course of the treatment, the person is

accompanied through the discovery and resolution of conflicts hidden at the roots of the drug abuse behavior. The therapeutic process helps in reconciliation and healing emotional injuries and traumas. It drives the person to self reorganize from inside, to recuperate harmony with the environment and to choose a healthier life style where drug abuse has no place. These processes are catalyzed by the use of a set of plants, considered to be healers and teachers by the Traditional Medicine, among them Ayahuasca and other purgative plants. We consider that the approach efficiently answers two key aspects not only for people with addiction problems but also for scientist in the field of addiction research. First, withdrawal syndrome during the detoxification phase is considerably reduced by the use of purgative emetic plants. These plants prevent from using substitution drugs and help the person to rapidly feel in a good shape, strengthening his motivation to keep on with the treatment. Second, the process of self-knowledge and emotional healing, necessary to achieve a true recovery from addictive behavior, is facilitated by the powerful ancestral tool to explore consciousness of Ayahuasca beverage. It is worth to mention that according to Takiwasi Center criteria, the ritualized and strictly controlled context is mandatory to account for the therapeutic properties of experiences with Ayahuasca.

In the last years, in-house and external researchers have performed some qualitative studies about the treatment protocol which yielded very encouraging results and interesting conclusions (Pressler-Velder, 2000; Giove, 2002; Pfitzner, 2005; Denys, 2005: Not peer-reviewed articles). Among them, the follow up study by Rosa Giove, conducted on about 200 ex-patients, showed an exceptional recovery rate of 54%. These encouraging results should be, however, considered with some potential limitations. On the one hand, the assessed ex-patient population had finished their treatment between two and five years prior to the evaluation, a time period not long enough to confidently establish a recovery rate. On the other hand the study was

performed in 1999, very early in the history of the application of the therapeutic model, and using home-made qualitative assessment tools.

The present project is conceived to evaluate the outcomes of Takiwasi's treatment on ex-patients discharged more than five years prior to assessment, and meeting the highest standards in the field of addiction research.

## ***Objectives of the project***

- 1. Asses long term outcomes of the addiction treatment protocol.*
- 2. Evaluate overall cost-effectiveness of the treatment.*
- 3. Evaluate each therapeutic intervention of the protocol considering its impact on the recovery process.*
- 4. Create a systematic way of data collection and storage to facilitate future research.*
- 5. Create a follow up program to continuously evaluate treatment outcomes.*
- 6. Publish in specialized, peer reviewed journals the results of the investigation.*

## ***Phases of the project***

### **Phase I: Preparation**

I.a. Address the financial, technical and logistic aspects of the project.

#### Major Tasks:

- *Evaluate the possibility of defining in a reliable way, an addiction severity measurement at intake from the data compiled in ex-patients files.*
- *Define the number of ex-patients to be evaluated.*
- *Collect ex-patient theoretical localization and contact data.*
- *Calculate the logistic costs to arrange and travel to carry out the interviews (mobility, communication, etc.)*
- *Define a schedule.*
- *Calculate total cost of the project.*
- *Look for potential funding sources.*
- *Drive conclusions about feasibility*

I.b. Set up of the evaluation protocol.

#### Major Tasks:

- *Selection of validated tools for measuring ex-patient status*
- *Translation, adaptation and validation of the selected tools to the socio-cultural reality of the patient's population.*
- *Establishment of the addiction severity baseline for each ex-patient from the data compiled in their files.*
- *Selection and adaptation of specific tools to evaluate effectiveness of interventions.*
- *Design a way of safely storing data.*
- *Write down an evaluation protocol.*
- *Write down the final project*
- *Capacitating and training interviewers.*

Some aspects of this phase are already launched. At the moment, we're developing a way to measure addiction severity at intake from the data collected in files. We're also analyzing available instruments to interview and measure current status of Takiwasi's ex-patients. Two evaluation instruments are being considered: 1) the "Addiction Severity Index" (ASI) developed by Thomas McLellan and collaborators, from the Veterans Administration Center for Studies of Addiction, and 2) the "Measurement in the Addictions for Triage and Evaluation (MATE) developed by

Gerard Schippers and Theo Broekman from the Amsterdam Institute for Addiction Research.

Considering Takiwasi's patient population, the selected tool needs to be translated into Spanish, English and French and adapted to individuals from very different socio-economical and cultural origins. Additionally, in order to explore the treatment protocol, we have to create and validate self instruments adapted to Takiwasi's protocol to evaluate cost effectiveness and the impact of each intervention in the therapeutic process.

The adaptation and creation of adequate evaluation tools is in itself an important subproject that will yield a precious core of instruments to assess ex-patients and the therapeutic model at different levels.

## **Phase II: Contact and Interviewing**

- II.a. Contact ex-patients and arrange interviews
- II.b. Create a detailed schedule for interviews
- II.c. Move to ex-patients place and perform the interviews

## **Phase III: Data Analysis**

- III.a. Create a Database
- III.b. Capacitate people involved in data storing
- III.c. Data storage
- III.d. Statistical analysis of data in collaboration with a specialized academic research group.

## **Phase IV: Data Diffusion**

- IV.a. Congress presentations
- IV.b. Publication of results in peer-reviewed journals.



***Time Frame and Estimated Budget***

Phase	2 <sup>nd</sup> Sem 2008	1 <sup>st</sup> Sem 2009	2 <sup>nd</sup> Sem 2009	1 <sup>st</sup> Sem 2010	Estimated Budget (USD)
Phase I					6000
Phase II					40000
Phase III					5000
Phase IV					5000
<b>TOTAL</b>					<b>56000</b>

Budget is based on a rough estimation considering fixed expenses.

The exact budget for the whole project will be established during Preparation Phase I and once the definitive number and localization of ex-patients to be interviewed is defined. However, there are some already known “obligatory” expenses detailed here below:

**FIXED EXPENSES**

ITEM	COST (USD)		COST (USD)
Researcher Stipend	750/month	x 24 month:	18000
Assistant Stipend (for Phase II)	400/month	x 12 month:	4800
A laptop computer	800		800
Air flight ticket for researcher	1500		1500
<b>TOTAL MINIMAL FIXED EXPENSES</b>			<b>25100</b>

---

**PRELIMINARY DETAIL OF ITEMS AND FARES FOR THE ENTIRE PROJECT**

	<b>COST (USD)</b>	<b>DETAIL</b>
<b>Phase I</b>	6000	Researcher salary, travel fares, a PC, office material, telephone fares.
<b>Phase II</b>	40000	Researcher and assistant salaries, travel, meal and accommodation, office material, telephone fares
<b>Phase III</b>	5000	Researcher salary, office material
<b>Phase IV</b>	5000	Researcher salary, congress inscription, publication costs

## References

- ↵ **Chiappe Costa M.** El empleo de alucinógenos en la psiquiatría folkórica”, Boletín de la OPS, Vol. 81, nº2, pp.176-186. 1977.
- ↵ **Denys A.** Importance d'une approche globale dans le traitement des addictions. Iboga et Ayahuasca, des perspectives intéressantes, Chamanisme et thérapeutique. Mythe ou réalité. Actes des VIIèmes Etats Généraux de l'Ethique, Institut Européen d'Ecologie, 2005, 80: 61-72.
- ↵ **Dobkin de Rios, M.** Hallucinogens. Cross-cultural perspective. Unity Preess. 1990.
- ↵ **Giove R.** Medicina Tradicional Amazónica en el tratamiento de las toxicomanías. La Liana de los muertos al rescate de la vida. 7 años de experiencia del centro Takiwasi. Comision Nacional para el Desarrollo y Vida sin Drogas, DEVIDA, Takiwasi, Centro de Rehabilitación Toxicómanos y de Investigación de las Medicinas Tradicionales. 2002.
- ↵ **Grob CS, McKenna DJ, Callaway JC, Brito GS, Neves ES, Oberlaender G, Saide OL, Labigalini E, Tacla C, Miranda CT, Strassman RJ, Boone KB.** Human psychopharmacology of hoasca, a plant hallucinogen used in ritual context in Brazil. J Nerv Ment Dis. 1996 Feb;184(2):86-94.
- ↵ **Halpern JH, Sherwood AR, Hudson JI, Yurgelun-Todd D, Pope HG Jr.** Psychological and cognitive effects of long-term peyote use among Native Americans. Biol Psychiatry. 2005 Oct 15;58(8):624-31.
- ↵ **Pfitzner F.** Therapeutische Effekte eines auf amazonisch-schamanistischen Praktiken beruhenden Behandlungskonzepts für Drogenabhängige. Eine explorative studie. Degree thesis in Psychology, Psychology and Work Sciences Institute, Technique University of Berlin, Germany. 2005.
- ↵ **Pressler-Velder, A.** Das therapeutische potencial der rituellen Verwendung sakraler Heilpflanzen, eine ethnopsychologische. Degree thesis in psychology, Psychology department, Koblenz-Landau University, Germany. 2000.
- ↵ **Schultes RE, Hofmann A.** Les plantes des dieux, Paris : Ed. du Léopard, 1993, 192 p.
- ↵ **Sueur C, Benezécha D, Lebreau B, Ziskind C.** Les substances hallucinogènes et leurs usages thérapeutiques. Partie 1. Revue documentaire Toxibase. 1999 :4 :1-28.