

The Dynamics of Providing Support to Crack Cocaine Addicts in Open-Air Drug Scenes: the lessons learned by the 'Helpers' intervention project

João Alberto Arantes do Amaral, and Aurélio Hess

Abstract

Providing support to crack cocaine drug addicts who inhabit open-air drug scenes is a challenge requiring a multidisciplinary support team with the necessary resources and capabilities to provide effective help. The dynamics of interactions between the support team and the addicts can be very complex, and may involve several stakeholders with different perspectives and, sometimes, conflicting goals. We describe the Helper's project, an intervention project which worked with a group of seventy people: most of them crack cocaine addicts, between February 2009 and November 2009 in Cracolândia (a very run-down open-air drug area of downtown Sao Paolo, Brazil); the project was delivered by a group of fifteen volunteers. We discuss the nature of the intervention from a systemic perspective. We present our findings related to the dynamics of the intervention that influences and is influenced by several other dynamics. We discuss the interrelationships among these dynamics, to provide a deeper understanding of the intervention process.

Keywords: Systemic intervention, Crack cocaine addicts' dynamics, System Dynamics, Cracolândia, Open-air drug scene.

La dinámica de brindar apoyo a los adictos al crack cocaína en escenas de drogas al aire libre: las lecciones aprendidas por el proyecto de intervención 'Ayudantes'

Resumen

Proporcionar apoyo a los adictos al crack cocaína que habitan en escenas de drogas al aire libre, es un desafío que requiere un equipo de apoyo multidisciplinario con los recursos y capacidades necesarias para proporcionar una ayuda efectiva. La dinámica de las interacciones entre el equipo de apoyo y los adictos puede ser muy compleja y puede involucrar a varios actores interesados con diferentes perspectivas y, a veces, objetivos conflictivos. Describimos el proyecto Ayudantes, un proyecto de intervención que trabajó con un grupo de setenta personas – la mayoría de ellos adictos al crack cocaína – entre febrero de 2009 y noviembre de 2009 en Cracolândia (un área de drogas al aire libre muy degradada del centro de São Paulo, Brasil); el proyecto fue realizado por un grupo de quince voluntarios. Discutimos la naturaleza de la intervención desde una perspectiva sistémica. Presentamos nuestros hallazgos relacionados con la dinámica de la intervención que influye y es influenciada por otras dinámicas. Discutimos las interrelaciones entre esas dinámicas, para proporcionar una comprensión más profunda del proceso de intervención.

Palabras clave: Intervención sistémica, Dinámica de adictos al crack cocaína, Dinámica de sistemas, Cracolândia, Escena de drogas al aire libre.

1. Introduction

Crack cocaine addiction is a problem that concerns governments and communities all over the world. It may ruin the lives of the addicted and their families; it can bring harmful effects to the economy and to the health system. Researchers (Ribeiro et al. 2015, p. 571) point out that “Brazil has the largest cocaine market the world, with 1 million users”.

Crack cocaine addicts may lose control of their own lives; they can be at the mercy of drug traffickers, suffering all kinds of abuse and violence. This kind of drug addiction is a difficult problem to solve: the dynamic is very complicated once there are many stakeholders involved (the addicted, their families, drug traffickers, the law enforcement authorities, the communities affected, governments, the institutions that provide help to the addicted) with different and, sometimes, antagonistic goals.

Our research took place in the downtown area of Sao Paulo city, an open-air drug region known as ‘Cracolândia’ (‘land of crack’). It is a region occupied by hundreds of crack cocaine addicts, who spend their days roving around the streets, consuming drugs, wrapped in dirty and ragged blankets. It is the scene of crack cocaine consumption and dealing. The dynamics of drug dealing triggers a wide range of illegal and criminal activities. It also a place of prostitution, therefore also bringing a proliferation of sexually transmitted diseases (STDs).

Cracolândia is a problem for the City of Sao Paulo; in recent years there were several interventions accomplished by NGOs, Sao Paulo State Government and the City Municipality of Sao Paulo in order to find a solution to it, by trying to stop the drug dealers’ activities and to help the addicts to recover from addiction.

Our research focuses on the analysis of the systemic aspects of one intervention, named ‘The Helpers intervention project’. The intervention project was delivered by a multidisciplinary team (physicians, lawyers, academics, economists, engineers, students and home-makers) and the targets of the intervention were seventy people (most of them drug addicts, but also small children and babies). The intervention purposes were to provide them food, medical care and guidance about the addiction recovery programmes available. The intervention project followed action research strategy.

We planned to accomplish an initial intervention in order to diagnose the problem and, after that, perform a series of weekly action research cycles. In each cycle, we would plan the intervention, accomplish the intervention, reflect on the results of the intervention and, based on the results, plan the improvements to be made in the following cycle (Figure 1). The process would be repeated until we figure out that we have achieved the results expected.

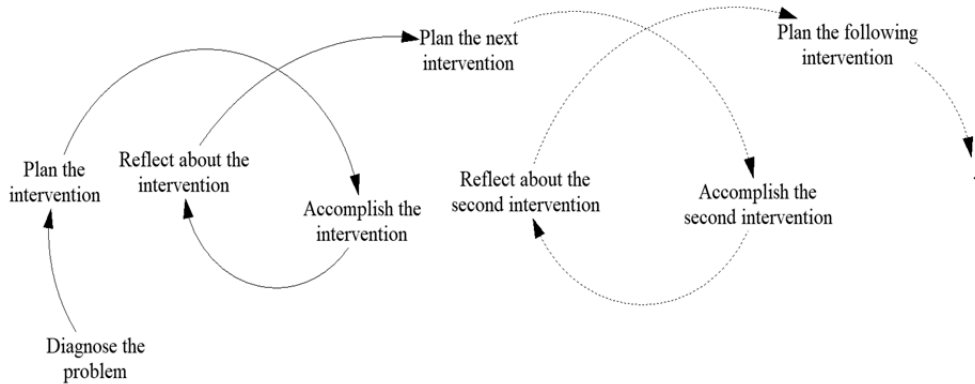


Figure 1. The action research strategy followed (based on Stringer (2014)).

The purpose of our research was to figure out the conditions under which the intervention project was effective, analysing, with a systemic perspective, the consequences of the actions taken for the people assisted and also for the intervention team. For this study we have used system dynamics models to represent the forces and societal issues related to the drug addiction problems referred to by Meadows and Wright (2008). System dynamics models can be useful to understand complexity in public health problems (Homer & Hirsch 2006). Such models can bring a systemic perspective of the drug addiction problem. The benefits of applying a systems perspective to action research are well recognized (Flood 2002, 2010; Barton et al. 2004; Marshall 2004; Ison 2008, 2010a, b; Midgley 2011; Burns 2007, 2012, 2014). We developed a causal loop diagram model to reveal the most common dynamics present in open air drug scenes. The model was created based on the literature review, and also in our practitioner experience in the field.

The model gave us insights to answer our research question, that was: “*What are the circumstances under which the intervention projects, aimed to give support to crack cocaine addicts living in open-air drug scenes, can be more effective?*”

We consider this question to be an important issue, because sometimes action research requires systemic interventions. An understanding of the systemic aspects of interventions, including cause and effect relationships, feedback loops and points of leverage, can be very useful to those involved in action research activities.

2. Literature Review

Open air drug scenes are complex systems; the stakeholders are interconnected and interrelated. The actions taken from one actor may impact all others, in several unexpected ways.

An ethnographic study of the Cracolândia area (Raupp & Adorno 2011; Rui 2014) highlighted the complex dependency relationships between crack cocaine addicts and other social players. Bossel (2007, p.39) pointed out that “dependence on others can become a

problem, if the dependence of an actor on the others reaches the point where he can no longer determine his own destiny autonomously”.

In our research we interacted with crack cocaine addicts, but while we were trying to help them, others stakeholders acted in ways which were inimical to our goals. The dynamics related to drug addiction are very complex, as Meadows and Wright (2008, p. 2) point out:

Drug addiction is not the failing of an individual and no one person, no matter how tough, no matter how loving, can cure a drug addict - not even the addict. It is only through understanding addiction as part of a larger set of influences and societal issues that one can begin to address it.

In this topic we make a synthesis of the existing knowledge about the dynamics of open-air drug scenes interventions. We will explain, based on relevant literature, what produces and sustains each dynamic, and how the dynamics are interrelated and interconnected.

We begin our review from the addict's perspective, explaining what causes the addiction, and why the drug user gets trapped in this cycle. Then, we exam the drug user problem from the traffic dealer perspective; discuss the dynamics that make the dealers dependent on the drug addicts, analyse the interrelationship between the two dynamics. Finally, we discuss how the two dynamics trigger several other dynamics that brings harms to the society. By understanding what makes and entrenches each cycle, the reader could be able to fully understand the dynamic of the intervention project described later in this article.

2.1 The dynamics of the addiction

In order to facilitate the understanding, we describe each feedback loop of the causal loop diagram presented in Figure 2.

There are several risk factors that lead one individual to make use of drugs, among those, crack cocaine. Researchers (Hawkins et al. 1992; UNO 2003; de Psiquiatria, 2012) point that risk factors include the individual factors (such as low self-esteem and sensation seeking behaviour, for example) interpersonal factors (such as association with friends who use drugs) and contextual factors (such as chaotic home environments, availability of drugs in the community).

Crack cocaine addiction is a vicious cycle: the more the user makes use of the drug, the more the drug's dependency increases (Cleck & Blendy 2008; de Psiquiatria 2012; Koob 2013), that leads the user to buy more drugs (Figure 2, feedback loop, “Addiction”).

It is difficult to break the addiction cycle: it may require to motivate the individual to search for treatment. The government, the family of the addicted and NGOs may play an important role, helping the addicts to participate in recovery programs. In the recovery programmes, the addicts may be exposed to several treatments such as detoxification, motivational enhancement, social skill training, motivational enhancement therapy (Egeland et al. 1988; Boisvert et al. 2008; de Psiquiatria 2012).

As the treatment becomes effective, the addict may stop using drugs, therefore breaking the addiction cycle (Figure 2, feedback loop “Overcoming the addiction”).

There is a connection between the dynamics of addiction and the dynamics of drugs selling. The addicts buy drugs from the drug dealers, therefore improving their sales. It triggers another reinforcing feedback loop: as the sales increase, the drug dealers' profits

increase as well. Therefore, the drug dealers may take different actions in order to get more addicts: such as dealing drugs to middle and upper class buyers (Van Nostrand & Tewksbury 1999). Increasing the number of addicts will reinforce the sales of drugs (Figure 2, feedback loop “Selling Drugs”).

However, the increase of the drug dealers’ profits can make the drug dealers gangs compete for territories (Nadelmann 1989; Levitt & Venkatesh 2000; Zaluar 2002), triggering wars among them (Figure 2, feedback loop, “Gang wars”). Gang wars may have two main consequences: an increase in the number of casualties, and the decrease of their profits. The increase of the number of killings is bad for the drug dealers: it triggers the police actions against them.

There is also a connection between the dynamics of the addiction and the dynamics of subsistence. The drug addicts are in constant need of buying food and drugs, but because of their addiction they are not able to hold down regular jobs. Some of them may try to make money by selling small items (candies, chocolate etc.) on the streets and to car drivers. Others may get money by performing small services, such as cleaning car windows. However, many of them get money by means of performing crimes such as selling drugs, using children to sell drugs, robberies, burglary, numbers running, prostitution (Goldstein 1985; Nurco 1987; Nadelmann 1989; Chaiken & Chaiken 1990; Hunt 1990, Anglin & Perrochet 1998; Gomes and Adorno 2011; Moyle & Coomber 2015; Raupp & Adorno 2015).

Therefore, the need of money also produces a feedback loop (Figure 2, feedback loop “Subsistence”). The greater the urge to buy drugs, the greater the need of money. Therefore, the drug addicts may perform illegal activities. Part of the money obtained may be spent on drug acquisition, action that reinforces the “Addiction” feedback loop, that leads to the reinforcement of the “Selling drugs” loop. Part of the money is spent on food acquisition, therefore closing the “Subsistence” feedback loop.

On the other hand, the increase of illegal activities leads to an increase in police actions against the drug users (Figure 2, loop “Actions against illegal activities”). It brings the reduction of the illegal activities performed by the drug addicts, reducing their sources of money, which impacts directly on their subsistence (Figure 2, “Subsistence” feedback loop) increasing the drug users’ stress (Rui 2012).

The increase of illegal activities also triggers the police actions against the drug dealers (Rui 2012, 2013). The number of drug dealers arrested may increase, which may lead to decrease of drug sales, consequently reducing their profit. One possible consequence is the increase of drug dealers’ actions against the police, which may increase the number of police officers killed or wounded (Figure 2, feedback loop “Attacking the police”). When this occurs, the police fight back, increasing the number of drug dealers arrested and the number of drug dealers killed (Figure 2, feedback loop, “Attacking the drug dealers”). These two dynamics may lead to an escalation of violence acts of both sides.

But attacking the police officers is not the only option the drug dealers have. It is more lucrative to the drug dealers try to corrupt the police officers, by offering them bribes (Liew 1992). When this happens, the police force reduces the actions against the drug dealers (Figure 2, feedback loop, “Corrupting the police”).

Drug addicts may suffer multiple stresses: the need of money, the exploitation done by drug traffickers (Cruz Neto et al, 2001), police oppression (Fabrino Favato 2012) and the

societal discrimination and stigma (Ahern et al. 2007; Young et al. 2005). They may also stigmatize each other (Simmonds & Coomber 2009).

The greater the stress, the greater the probability of drug users to commit violence against each other. The violence may lead to fights, which may cause fight wounds that contribute to the increase of health problems and, consequently, to the increase of the stress (Figure 2, feedback loop “Drug user’s stress”).

In addition to the health problems caused by fights, there are also health problems caused by STDs. Research suggests that drug addicts may also become infected with a wide range of sexually transmitted diseases (Booth et al. 1993). Both problems may result in an increase in the number of deaths among drug users’ population.

Figure 2 shows the connections of the dynamics we could identify by our literature review so far. The causal loop diagram created is a model, and as all models, it has its own limitations and deficiencies (Sterman 2002). However, this model was useful to make us understand the deeply entrenched relationships between the dynamics described.

Cracolândia is an open-air drug scene, therefore it has many of the dynamics presented. Consequently, it brings all kinds of harm to City of Sao Paulo. But how are the Sao Paulo community, NGOs and government dealing with this problem?

They deal with this problem with different kinds of systemic interventions. Intervention, in the context of this study, can be defined as “a purposeful action by an agent to create change” (Midgley 2000, p. 7). The interventions analysed in our research had the purpose of promoting change in the conditions of the drug users of Cracolândia area. Stephens (2014, p.311) defines systemic intervention as a “non-linear approach to interventions into complex and problematic situations, or sets of social systems, to generate new understandings”.

We present our literature review of four interventions accomplished from 1998 to 2016 in Cracolândia: one accomplished by one NGO, one accomplished by the City Municipality of Sao Paulo, one accomplished by State of Sao Paulo Government and one accomplished together by City Municipality and the State Government of Sao Paulo.

2.1.1 Intervention accomplished by NGO “É de lei” (It’s from the Law).

NGO “É de lei” (It’s from the Law) is an organisation that promotes actions in Cracolândia in order to promote harm reduction for crack cocaine users. The NGO began its activities in 1998. Nowadays it has fifteen members, all volunteers. It has a community centre (just a small room and a bathroom). In this centre, the NGO members “provide orientation meetings to the addicts, about preventive sexual practices and the abusive nature of drugs” (Frúgoli & Spaggiari 2011, p.558). The goal of the NGO is to promote reflection and knowledge sharing, this way empowering the addicts (Godoy et. al. 2014). The NGO also provides them material resources (condoms, silicone cigarette holders, chopsticks and other materials). This kind of intervention has the merit of improving the life conditions of those assisted, and promoting culture change for drug addicts (Godoy et al., 2014). The drawback is that, by providing smoking material to the drug addicts, it may be contributing to the dynamic of the addiction.

2.1.2 Intervention 'Operação Sufoco' (Operation Choke)

In 2012, there was an intervention, conceived by the City Municipality and State of São Paulo Government named 'Operação Sufoco' (Operation Choke) accomplished by the military police. The intervention had the goal of breaking the traffic logistics by removing the drug addicts from the region. The operation also had the purpose of offering drug addicts treatment in the public hospitals and health centres. However, the intervention did not achieve any of its goals, mainly due to the lack of co-ordination between the stakeholders (Rui 2013). There were no health institutions ready to give the addicts the necessary support. Therefore, the drug users moved to the surrounding neighbourhoods, creating small open-air drugs scenes there. And most of them returned to Cracolândia after a few weeks.

2.1.3. Intervention "Recomeço" (Start again)

There was a huge intervention programme accomplished by São Paulo State Government, in 2013, named "Recomeço" (Start again). There were several actions taken by the State Government, such as the installation of tents and mobile offices in Cracolândia region, with multidisciplinary teams (nurses, social workers and health agents) (Ribeiro et al. 2015). The state government provided a building with facilities that enable it to provide health care services, detoxication support, sport activities and job orientation to the addicts. This intervention has the merit of providing facilities and resources to those addicts that look for help. The drawback of this intervention is that the building was in the Cracolândia area. Therefore, the drug addicts attended were in the same environment of the other addicts and under the influence of the drug dealers.

2.1.4 Intervention "De braços abertos" (With open arms)

In 2014, there was another intervention taken, this time, by the City Municipality. The intervention was named "De braços abertos" (With open arms). Its goals were to remove the addicts' shacks from the streets, and to offer the drug users accommodation in local hotels, meals and jobs as street sweepers (Ribeiro et. al. p.571). However, this intervention had many problems: many addicts used the money they received as street sweepers to buy drugs. And the hotels, situated in the Cracolândia area, were in precarious conditions: many drug addicts used them as a space for drug trafficking and consuming (Cavalcanti et al. 2015).

What those intervention have achieved so far? Ribeiro et al. (2015, p. 571) point out:

The great majority of drug users remains firmly based in the area, despite the offer of treatment, employment and accommodation. Cracolândia still attracts drug trafficking homeless people, former convicts and individuals unable to integrate main-stream society.

Why so? Maybe because the interventions did not address the problem in a systemic way, the interventions did not combat the vicious cycles adequately. It seems there is a lack of understanding about the main dynamics that drive the open-air drug scenes. In our research we try to contribute to the understanding of the aforementioned dynamics.

3. Methodology

In this section we differentiate the methodological approach of the intervention and the systemic approach (the case study).

3.1 The Methodological approach of the intervention

We followed a systemic intervention methodological approach (Midgley 2000). Midgley (2003, p.89) suggests the “methodology should be explicit about three things: boundary critique, theoretical and methodological pluralism, and action for improvement”.

The boundaries critique (Midgley 2003, p.89) defines “what issues are to be included, excluded or marginalised in analysis and who is to be consulted and involved”.

In our case study there were four groups involved: the researchers, the intervention team, the assisted community and the community partners. In our analysis we focus on the issues related to the consequences of the actions of the intervention team to the assisted community and vice versa. We did not focus our research on the relationships between the police and drug dealers. We described it, but did not deepen our research of it.

The second aspect of the systemic intervention (theoretical and methodological pluralism) concerns the choice researchers made with regard to “the most suitable and appropriate methods for the intended purpose of the research” (Stephens 2014, p.312). In our research, we followed action research approach; its advantages have been described by Stringer (2014, p. 5):

...action research provides a flexible and practical set of procedures that are systematic, cyclical, solution oriented, and participatory, providing means to devise sustainable improvements in practice that enhance the lives and well-being of all participants.

In addition to that, we also used system dynamics theory in order to create the models that represent the dynamics studied.

The third aspect of the systemic intervention methodological approach covers the actions for improvement. Midgley explains (2003) that actions for improvements can be achieved when interventions bring the desired consequences. In our study we analyse the actions taken by the intervention team in order to improve the conditions of the drug addicts.

3.2 The systemic approach of the intervention

The intervention consisted of several one-week action research cycles. At the beginning, the intervention team identified the problems to address, and then planned the first intervention. In the next week they implemented these actions and observed and reflected on the results. The findings from each cycle were used to improve the action plan for the following cycle; this way they were able continuously to improve the actions.

3.2.1 The researchers' roles

The second author worked as a field researcher. He was a member of the intervention team. His job was to assist the team members with all the activities they performed during the

project, and while doing so, to observe and take notes on the behaviour of all stakeholders. The first author supported the research by contributing to the analysis of data, including applying the systems perspective to the results.

3.2.2 The intervention team

The intervention team consisted of 15 members: two physicians, two lawyers, one economist, three professors, two engineers, three university students and two homemakers.

3.2.3 The assisted community

The people supported by the project (hereafter the Helped) were a group of around 70 people, approximately 55 adults and 15 children, including a small number of girls aged 10 to 12 years who were pregnant. All the adults were unemployed and suffered from drug addiction to some extent; they had all been abandoned by their family or lost contact with them. They lived in a very run-down empty building, without water, electricity, doors and windows in Cracolândia. They shared the building, competing aggressively for the scarce resources. They fought constantly with each other, and thus were frequently wounded.

3.2.4 The partners

Federação Espírita do Estado de São Paulo (Spiritist Federation of State of Sao Paulo, thereafter FEESP) offered its facilities for the meetings of the intervention team. This organisation offers free lectures, seminars and spiritual assistance almost every night, for anyone who is interested. The free lectures cover topics of general interest such as chemical dependency, domestic violence and sexual assault prevention, child neglect, family conflicts, and so on. Spiritual guidance is offered in counseling sessions in which FEESP's mentors speak with people who are experiencing financial, health, or social difficulties. The mentors listen attentively to the people and give them guidance and orientation. The intervention team had the support of a bakery and a drugstore in the Cracolândia area, both of which sold their products to the intervention group at a discount.

3.2.5 Data gathering

The researcher (the second author) collected qualitative, observational data whilst participating in the assistance cycles, taking notes of anything that might help interpret behaviours and attitudes. During the project he conducted short interviews when it was possible to do so. He asked questions about the needs of the assisted community, their feelings, the problems they were facing and the impact of the intervention actions on their lives. The researcher also observed the interactions of the Helped with other members of the community, in order to understand the dynamics of their relationships.

3.2.6 Data analysis

The research team applied systemic analysis to our data using the system dynamic modeling method described by Sterman (2000). The objective was to identify the system's structure that was responsible for the patterns of behaviour observed.

4. Intervention Description

The intervention began at the FEESP's facilities. Paul (fictitious name), a 72-year-old economist, was one of the FEESP's lecturers. After one of his lectures he was approached by an old man, in ragged clothes whose name was Carlos (fictitious name). Carlos told Paul that he was representing a group of drug addicts that lived in desperate conditions in an abandoned building in the Cracolândia area. He asked Paul if he could find some way of helping them. Carlos said the group, numbering about seventy people, was starving and that many of them were sick and injured. They urgently needed food and medicines.

Paul agreed to help. Next week, at the end of his FEESP lecture, he told his audience about the group and its problems. He asked for volunteers. Fifteen people raised their hands. Paul took their names, and invited them to join to an intervention project to help Carlos's community (thereafter 'Helped'). The intervention was named 'Helpers Project'.

The intervention had two goals. The primary objective was to help the addicts to find ways of leaving addiction, mainly by giving them information about the public programmes available to them. The secondary goal was to ameliorate their living conditions by providing food, medicines and assistance. The intervention team named themselves the 'Helpers'.

4.1 Diagnosing the problem

A group of 3 Helpers (including Paul) made the initial approach to the Helped. They visited the house where the Helped were living, taking with them some food, water, and medicines. During this visit the group realised that the problem was much worse than they had initially imagined. The conditions were terrible. The house was dirty, there were drugs and syringes everywhere, and insects and rats abounded. To make matters worse, the Helped community included 15 children of various ages, some only babies. Some of the females were pregnant. Many of the Helped presented signs of contagious diseases. All of them were starving, and they quickly ate the food the group had brought. The group noticed that many of the Helped had untreated wounds. Many of them needed a good bath, better clothes and a haircut.

Paul talked to the community about the Helpers Project, and asked their permission to visit on a regular basis, once a week. They welcomed the Helpers' team, and the intervention began.

4.2 Planning the intervention

The following week the full Helpers team met at FEESP again. The purpose of the meeting was to define the goals of the intervention, and the roles and responsibilities of the various team members, and to plan fundraising activities. It was decided that the Helpers would visit the Helped every Thursday night, after Paul's FEESP lecture. Before each weekly visit the Helpers would hold a short briefing session at which they would discuss the goal of that week's intervention. After the visit they would have a debriefing session and consider the actions for the following week. They decided that the expenses of the intervention would be shared among the Helpers, and agreed to seek support from Cracolândia's bakeries and one drugstore.

Paul was the leader of the Helpers' group; he was in charge of co-ordinating the Helpers during the visit. The lawyers would be responsible for providing legal support to the Helped. The doctors would examine them and decide what medication they needed. The women (homemakers and students) would be responsible for helping the children during the visit (changing diapers, providing milk for the babies). The second author was in charge of collecting information about the Helped, and providing other support as necessary. The others would distribute food, cut hair, perform basic first aid for the wounded etc. Everyone would offer comfort to the Helped.

They decided the Helpers would undertake the following actions on every visit:

- a) distribute food and water (and in the winter, hot chocolate)
- b) provide care (cutting hair, changing dressings on wounds)
- c) provide personal hygiene orientation to both adults and children
- d) provide guidance on free municipal services of relevance to the Helped.
- e) provide information about the addiction recovery programs available
- f) comfort anyone in despair, listening and empathizing with their anguish.
- g) create a new list of needs in preparation for the next visit.

It was decided agreed each visit would not last more than 2 hours.

4.3 Delivery of the intervention

Forty visits were made to the Helped between February 1999 and November 1999. On the first five visits, the Helpers focused on developing a friendly and meaningful relationship with the assisted community. The Helpers presented to them the purpose of the visits, in an egalitarian and non-threatening way. The Helpers introduced themselves as persons that the community could ask for support. During the five visits, the field researcher focused on the understanding the community's dynamics and its history. He was able to learn about the community's past, how the group was formed and it developed. He was also capable of identifying the leaders. He realised the ways the community members interacted with each other. He figured out what were their concerns, fears, and needs. He also talked to each member of the community. They felt comfortable to share with him their lives' stories, what led them to the present situation. These conversations helped him to break barriers, to establish connections, and to have a deep understanding of the addiction vicious cycle.

During the five initial visits, the Helpers were still developing the procedures to be performed during the visits. After several trials, they realised that the food should be distributed right away, in order to reduce the nervousness and agitation of those served.

The Helpers also realised that attending to both children and adult in the same space was not a good idea. In order to protect the children from predators, the Helpers decided that the children and the adults should be attended to in different contiguous areas. The Helpers also realised the need for having a better organisation, defining the Helpers leaders. One leader would be in charge of organising the food distribution; another would be responsible for arranging the attending of the community members that were wounded. The third one was in charge of organising counseling with the lawyers for the purpose of providing guidance on free municipal services and addiction recovery programmes. The fourth one was accountable for co-ordinating the actions on behalf of the children.

The Helpers figured out how to co-ordinate these efforts to provide the maximum assistance in the short available time they had.

In the following visits the Helpers did not face any substantial problems: actions were implemented on a regular basis, according to the plans. The visit procedures were well defined, the community developed bonds with the Helpers.

By the 38th visit, however, there was a great problem: a group of drug dealers invaded the building where the Helpers acted, and behaved very brutally and aggressively. They made it clear to the Helpers that their actions were against the dealers' interests. The drug dealers made threats to the lives of the Helpers. Fortunately, some of the Helped intervened and threw the dealers out. The following two visits were tense: the drug dealers were nearby, offending and intimidating the Helpers. The Helpers began to fear for their lives. Carlos, the leader of the Helped, asked the Helpers to stop visiting because the situation was also dangerous for the Helped. The final visit took place in the fourth week of November 1999.

4.4 Results

The intervention project accomplished two goals, to a significant degree. The first goal (to help the addicts to find ways of leaving addiction by giving them information about the public programmes available to them) led to the realisation of more 40 hours of counseling activities. In consequence of that, we estimate that 10% of the Helped enrolled in drug addiction programmes run by the Sao Paulo Prefecture.

The second goal (to ameliorate the Helped's living conditions by providing food, medicines and assistance) was also achieved. During the intervention period the Helpers delivered approximately 350 kilograms of food, 1360 litres of water, 680 litres of hot chocolate and approximately US\$ 30,000-worth of medicines.

5. Discussion: the dynamics of the intervention

During the visits the Helpers accomplished five different actions (obtaining support from community partners, donating food, donating of medicines, performing care and comfort actions and providing guidance and orientation), each action impacted the dynamics of the open-air drug scene in several different ways. In this section we discuss the merits and drawbacks of each action.

After the discussion of each action, we consider the longer-term sustainability of the intervention project. Finally, we compare with other interventions described previously in the literature review.

We make our discussion based on Figure 3, explaining the dynamic deployments of each intervention action taken.

5.1 Action one: getting resources

The need to make the intervention stimulated the Helpers to intervene. They took actions to get support from local businesses (bakery and drugstore) that operate in the region. The support of the bakery and drugstore reduced the financial cost of the intervention, and enabled the Helpers to buy the necessary food and medicines. This action was easy to accomplish: the bakery and drugstore owners were people willing to co-operate, they wanted to do something in order to help the drug addicts. Getting the resources motivated the Helpers to continue the intervention week after week, creating a feedback loop (Figure 3, 'Getting support' loop).

One possible drawback of this action was the eventual future lack of support from these partners, once the intervention project created a financial burden to them (Figure 3, 'Supporting the intervention' loop). As the months passed, the bakery and drugstore owners would realise the reduction of their profits, therefore it reasonable to expect that their willingness to collaborate would reduce.

5.2 Action two: donating food

The donation of food addressed the most urgent needs of the Helped. They were always hungry, so giving them food was a way of providing immediate relief, therefore reducing the need of money to buy food (loop 'Subsistence', Figure 3) and, consequently, contributing to the reduction of their stress (loop 'Drug users' stress, Figure 3).

The donation of food also contributed to building trust between the Helped and the Helpers, creating another feedback loop (Figure 3, 'Building trust'). Building a trusting relationship provided a safe dynamic for the Helped to follow the Helpers' counsel.

However, the donation of food did not contribute to the reduction of the addiction cycle. On the contrary, some drug addicts used the money they got from illegal activities, now saved for not needing to spend it on food acquisition, to buy more drugs, therefore increasing their addiction (Figure 3, loop 'Addiction'). Another drawback of this action is that donating food increases the dependency of the Helped on the Helpers, therefore generating a dependency feedback loop (Figure 3, loop 'Dependency').

5.3 Action three: donating medicines

The donation of medicines had a similar dynamic: in one way it contributed to the Helped well-being, contributing to the development of the trust between the Helped and the Helpers (Figure 2, loop 'Building trust'). On the other hand, some addicts stole the medicine from others, and sold them to generate money to buy illegal drugs, therefore increasing their addiction (Figure 2, loop 'Addiction').

5.4 Action four: providing care and comfort actions

The comfort actions can be divided in two different groups: the friendly dialogues and the provision of hygiene support.

The friendly dialogues were very effective; the Helped desperately needed to be heard, to talk about their anguish, torment and suffering. These conversations made it easier for

the Helpers to break down barriers and get closer to the group they were assisting. These actions reinforced the ‘Building trust’ feedback loop.

The provisions of hygiene support (cutting hair, providing soap and shampoo) had the effect of alleviating Helped discomforts, increasing their well-being, therefore reinforcing the trust the Helped had in the Helpers (Figure 3, loop ‘Building trust’).

The care actions (treating their wounds), besides increasing the trust the Helped had on the Helpers, also had a direct positive impact on the health of the Helped, alleviating their stress (Figure 3, loop ‘Stress’).

The drawback of these actions was: increasing the trust the Helped had on the Helpers also increases the dependency relationship (Figure 3, loop ‘Dependency loop’).

5.5 Action five: providing guidance and orientation

The guidance provided by the lawyers and the physicians also helped the Helpers to gain the trust of the Helped (Figure 3, ‘Building trust’ loop). During the visits the physicians always counseled the Helped to resolve their differences without fighting each other and without violence. Following the physicians’ counseling led to a reduction in the number of fights amongst the Helped, therefore reducing their wounds, their health problems and their stress (Figure 3, ‘Drug users’ stress’ loop).

Throughout the visits the lawyers always gave orientations about the State and Municipality addiction recovery programmes available to the Helped. Over the course of the intervention, around 30% of the Helped followed the Helpers’ counseling and guidance and sought addiction recovery programmes. During the intervention period, at least 10% of the Helped (seven people) joined recovery support groups and left Cracolândia (Figure 3, ‘Overcoming addiction’ loop). The Helpers celebrated each recovery; these milestones motivated them to continue with the actions.

However, the Helpers’ actions did not go unnoticed, the drug dealers started to be worried about their impact. They felt the Helpers’ actions were reducing the number of addicts in the region, and having a negative impact on their sales (Figure 3, ‘Selling drugs’ loop). They retaliated, taking actions to intimidate the Helpers.

5.6 Considerations about the longer-term sustainability of the intervention project

Was the Helpers’ intervention project sustainable? Probably not. It relied solely on the goodwill of the Helpers, and the support of few community partners (the bakery and the drug store). The Helpers did not have any sponsor or Government funds. The intervention generated benefits to the Helped, but externalities (financial burden and psychological stress) to the Helpers and the community partners. More than that, the Helpers did not have any condition of facing the threats of the drug dealers. The project was doomed without some form of systemic protection and security.

However, the intervention project may not be considered a total failure. It partially achieved its goals, bringing benefits to the Helped (at least, while the project lasted). Probably the greatest strengths of this project were the academic findings that it helped to

reveal. The intervention project helped to reveal the systemic aspects of an intervention for providing support to crack cocaine addicts who inhabit open-air drug scenes.

5.7 Comparison with other interventions accomplished in Cracolândia

The Helpers' intervention dynamics shares similarities with the actions accomplished by the NGO 'É de lei' (Godoy et. al., 2014). Both interventions were carried out by volunteers, and both tried to empower the drug addicts. However, while the NGO 'É de lei' focused on harm reduction, the Helper focused on providing immediate hunger relief, medical attention, and orientation to the addicts to leave the addiction. The dynamics of 'Building trust' (Figure 3) were present in both interventions. However, the Helpers actions led to the reduction of the number of addicts, impacting directly on the dynamics 'Selling drugs' (Figure 3). We speculate that, due the difference of the focus, the Helpers were attacked by the drug dealers, and the NGO 'É de lei' was not. The Helper's actions could be seen, in the drug dealers' point of view, as a direct threat to their business. It is possible that the NGO 'É de lei' actions were not perceived as a threat to their activities. Probably the drug dealers see the NGO 'É de lei' actions as helpful to their business, once it can be seen as actions that lead to the increase in the addiction (Figure 3, Addiction).

We consider that the 'Operation Choke' (Rui 2013) failed due to the lack of systemic connections between the actions taken. The operation imposed pain and suffering to the drug addicts, since the addicts were removed from Cracolândia without being given the necessary health support. The dynamics of this intervention had no similarity with the intervention accomplished by the Helpers. This intervention reduced, for a short period of time, the force of the 'Selling Drugs' Loop (Figure 3).

We consider that the intervention taken by State Government (the 'Start again' Programme) and Helpers' intervention act on the same dynamics, differing only in orders of magnitude. While the State invested millions of dollars in creating a structure support attending hundreds of people, the Helpers relied on their own resources and supported just 70 people. The 'Start again' programme followed a top-down approach while the Helpers followed a bottom-up one. Both interventions aimed to empower the drug addicts, both tried to give them conditions to leave the addiction. Both acted on the 'Building trust' loop and on the 'Overcoming addiction' loop. However, we speculate that both interventions share the same flaws: both create cycles of dependency (Figure 3, 'Dependency' loop), in different orders of magnitude. And both generated externalities, the costs of the intervention (Figure 3, 'Supporting the intervention' loop). The costs of the Helper' intervention was laid on the shoulders of the Helpers and the community partners. The costs of the 'Start again' Programme was paid by the taxpayers.

The 'With open arms' intervention had systemic problems. The actions taken brought several unintended consequences, such as the use of the hotels as safe place for consuming and trading drugs, and the use of the money (given to the addict as salaries for sweeping the streets) to buy drugs. The intervention increased the drug addicts' dependency on the programme (Figure 3, 'Dependency' loop) and also increased the selling of drugs (Figure 3, 'Selling of the drugs' loop). And, of course, it generated costs to the taxpayers (Figure 3, 'Dependency' loop).

6. Findings

So, what did we learn from the Helpers' project?

Thinking at a different level of abstraction, we speculate that many of the dynamics studied may be present in other context of open-air drug scenes interventions.

We can also say that the model developed was a useful tool to compare different interventions accomplished in Cracolândia. We believe this model can be also useful to study open-air drug interventions elsewhere.

In all interventions studied, there were effective and ineffective intervention actions accomplished. The effective intervention actions may bring positive results (such as increasing numbers of the addicts in recovery programmes, increasing numbers of the drug dealers arrested, decreasing drug sales). Those results would eventually lead to the reduction of need of accomplishing new interventions (Figure 3, 'Right interventions actions' feedback loop).

On the other hand, the ineffective interventions actions may bring negative results (such decreasing numbers of the addicts in recovery programmes, increasing drug sales, increase in dependency). Those results would, eventually, lead to the increase of the need to accomplish new interventions (Figure 3, 'Wrong interventions actions' feedback loop).

All interventions studied lead to the need for support, creating a feedback loop (Figure 3, 'Getting support' loop), and the more support the intervention got, the more motivated they were to take further actions, and vice versa. In all interventions studied, someone paid the costs of the intervention: the businesses, the volunteers or the taxpayers. The payment of the costs of the intervention generates a negative feedback loop (Figure 3 'Supporting the intervention'); it is quite reasonable to assume that the support will not last indefinitely.

In all interventions studied the actions taken addressed only the consequences of the cycle of the addiction: none of them addressed the risk factors (Figure 3, 'Addiction loop') the lead people to become addicts.

In the case study we see that the Helpers' intervention disturbed the equilibrium of the system of which the Helped community was a part. It was predictable that the other stakeholders would act to restore the former equilibrium; the actions of the drug dealers were a consequence of the intervention that could have been anticipated.

We can also say that the planners of an intervention should carry out an analysis of the system within which they will be operating, before they act. Had the Helpers, when planning the project, created a causal loop model of how the dynamics of the system might play out in response to their actions, they would not have been surprised by the actions of the drug dealers. They might have been able to adjust their plans to avoid this threat to the intervention.

7. Conclusions

We think the lessons of the Helpers' project have a wider relevance. We have described a specific intervention process which took place in a specific context, but we think it likely that the primary dynamics we uncovered would be present in several other similar contexts.

We consider the discussion of the dynamics of the intervention The Helpers project contributes to understanding the complex connectivity among the actions of diverse stakeholders in open-air drug scenes interventions.

We can also say that action research approach followed by the Helpers' project was temporarily effective, but hampered for not being systemic in planning and intervention; the outcome for drug dealers was not predicted, and the dysfunctional behaviours of users sometimes resulted in ineffective support. The conceptual model of the drug addiction system was indeed effective for revealing all the dynamics, but the programme failed because it did not respond to all stakeholders. The use of short action research cycles helped the Helpers to improve the intervention processes, week by week.

We advise that drug addiction intervention programmes must be grounded in a systemic model that includes actions that are responsive to all the dynamics, especially the threats associated with drug dealers and the dysfunctional behaviour of users.

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About the authors

João Alberto Arantes do Amaral is a Professor. Doctor in Civil Engineering at Federal University of Rio de Janeiro. He has worked with community-based learning, project-based learning, systems thinking and action research in Sao Paolo, Brazil. He is the head of the Project and Problem Based Learning Research Group of Federal University of Sao Paolo (UNIFESP-Osasco).

Aurélio Hess is a Professor. Master in Management and Finance Planning at Catholic University of Sao Paolo. He is member of the Project and Problem Based Learning Research Group of Federal University of Sao Paolo (UNIFESP-Osasco). He has worked with project-based learning and action research in São Paulo, Brazil.

Authors' addresses

João Alberto Arantes do Amaral
Rua Corinto, 155, Vila Indiana, São Paulo, SP, Brazil
ZIP code: 05586-060
Tel. 55-11-97247-7854
e-mail: jarantes@alum.mit.edu

Aurélio Hess
Rua Corinto, 739, Vila Indiana, São Paulo, SP, Brazil
ZIP code: 05586-000
Telephone: 55-11-2609-8713
e-mail: hessaurelio@gmail.com