









# Motivation for first-time drug use and relapses of people in treatment

*Motivação para primeira experiência do uso de drogas e recaídas de pessoas em tratamento*

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## ABSTRACT

The aim of this study was to investigate the motivation for first-time drug use and relapses after abstinence of people with chemical dependency to crack cocaine. A descriptive study, with a mixed approach. In the quantitative phase, six hundred interviews were conducted using a structured questionnaire. In the qualitative phase, eight focus groups were created, with 39 total participants. SPSS software and the sense interpretation method were used to analyze the data. Curiosity, as well as peer pressure and family problems, motivated the initiation of drug use. Difficulty to live without the drug, desire to feel its effect again, peer pressure, family problems, disappointment in lack of trust of family members, and drug use at the rehabilitation institution were reported as relapse motivators. The data in both methodologies were convergent and confirmed the obtained results.

**Descriptors:** Crack Cocaine; Cocaine-Related Disorders; Substance Withdrawal Syndrome; Substance-Related Disorders.

## RESUMO

O objetivo deste estudo foi investigar a motivação para primeira experiência no uso de drogas e recaídas após abstinência por pessoas com dependência química induzida pelo crack. Estudo descritivo, de abordagem mista. Foram realizadas 600 entrevistas com a utilização de questionário estruturado, na etapa quantitativa, e oito grupos focais, na etapa qualitativa, com total de 39 participantes. Para análise de dados utilizou-se o software SPSS e o método de interpretação de sentidos. A curiosidade motivou a iniciação do uso de drogas, assim como a pressão dos amigos e problemas familiares. Já a dificuldade de ficar sem a droga, vontade de sentir o efeito novamente, pressão de amigos, problemas familiares, decepção pela desconfiança dos familiares e o uso de drogas na própria instituição de tratamento foram relatados como motivadores de recaída. Os dados em ambas as metodologias foram convergentes e ratificaram os resultados obtidos.

**Descritores:** Cocaína Crack; Transtornos Relacionados ao Uso de Cocaína; Síndrome de Abstinência a Substâncias; Transtornos Relacionados ao Uso de Substâncias.

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## INTRODUCTION

The history of psychoactive drug use by humans and its harmful effects accompany all human existence. In Brazil, according to the III National Survey about drug use by the population, approximately 11.7% of Brazilians between 12 and 65 years of age (17.8 million individuals) consumed alcohol and tobacco in the 12 months prior to data collection. Around 2.6% (nearly 4 million individuals) consumed alcohol and at least one illicit substance and 1.5% (or 2.3 million people) consumed alcohol and non-prescription medications of some sort<sup>(1)</sup>.

In the context of harmful or dependent drug use, especially of illicit drugs, it is important to highlight cocaine, the use of which has provoked discussion both in the realm of common sense as well as scientific knowledge. Worldwide cocaine production increased by 25% between 2013 and 2015. The use of this drug is higher in Latin America and has grown in South America in the last years, especially in Brazil's<sup>(2-3)</sup> central-western region, which registered the highest figures in 2013 with a proportion of 2.6% of the total population, equivalent to 276,000 users<sup>(4)</sup>.

Due to its psychotropic nature, cocaine is prone to generate abusive and dependent use. It acts on the nucleus accumbens located in the brain and enhances feelings of pleasure, creating a growing need to use<sup>(5)</sup>.

One of the presentations of cocaine, the smoked cocaine, especially represented by crack, can quickly cause dependence, hindering measures to prevent experimentation and post-abstinence relapse<sup>(6)</sup>.

Since the spread of crack use in Brazil after the end of the 1980s, concern has existed regarding the dependency that this drug rapidly provokes and the behavior of users who feel cravings. These things drive users to involve themselves in crime, violent acts, and risky sexual behavior. Higher levels of craving are associated with those using the substance for longer times and in greater quantities<sup>(6)</sup>.

Studies<sup>(7-8)</sup> have focused motives on interrupting crack use, concentrating on the damage to different aspects of life and high costs to the public health system. However, it is important to learn what attraction motivates crack use and, having experimented with it, what hinders the cessation of use. These results may help support actions to prevent dangers, as well as promote health.

Systematic review and meta-analysis<sup>(9)</sup> identified a lack of primary studies about crack cocaine in comparison to studies about other drugs. Therefore, investigations should be conducted in this area to obtain careful evidence from the population using drugs, specifically regarding health factors distinctly related to the use of crack and cocaine.

Considering this, the following research questions arose: What motivates a person to try crack? What causes people

who are in rehabilitation to relapse after maintaining an abstinence period from crack?

To this end, the aim of this study is to investigate the motivation behind first drug use experience and relapses after periods of abstinence of people in hospital treatment for dependence on crack.

The proposal of this present study originated from a larger research project that sought to understand the infection profile of the hepatitis B virus (HBV), hepatitis C virus (HCV), human immunodeficiency virus (HIV), and human T-lymphotropic virus (HTLV) in crack users.

## METHODOLOGY

A descriptive and exploratory study with a mixed approach in which qualitative and quantitative concepts, methods, and approach techniques were combined in a single investigation<sup>(10)</sup>.

The study was conducted at the Chemical Dependency Unit (CDU) of a philanthropic hospital linked to Brazil's Unified Public Health System (SUS). This institution is considered a reference for this type of treatment in the state of Goiás, Brazil.

Included in this study were individuals 18 years or older who had consumed crack 60 days before admission and were in treatment at the institution for chemical dependency caused by crack. Those with psychotic symptoms, altered state of conscience, psychomotor agitation, and severe withdrawal symptoms were excluded.

## Recruitment and data collection

Data of crack users in treatment at the institution were collected between August 2012 and April 2013, with a concurrent approach since qualitative and quantitative data were collected at the same time<sup>(11)</sup>. All eligible crack users admitted to the hospital during the study period were invited to participate in the project. They were informed of the objectives, risks, and benefits of the survey. After accepting, an informed consent form was signed. Data collection occurred twice a week in the evening. In this way, the study sample was obtained according to the convenience and interest of the participants.

The study population was composed of 600 people admitted to an institution for crack dependency treatment, from whom quantitative data was collected. The study was conducted in a private room in the facilities of the Chemical Dependency Unit (CDU) by applying a questionnaire adapted from the National Survey of Crack User Profile performed by the Oswaldo Cruz Foundation/Ministry of Health (FIOCRUZ/MS) that had previously been evaluated by experts in the field. As people participated in this stage, they were invited to the focus group (FG) sessions of the qualitative phase. FGs were

created according to the people who accepted the invitation. Thirty-nine people were distributed into eight groups, with a mean of four people per group. Group formation ended after achieving data saturation.

In turn, qualitative data were collected through focus groups guided by four questions: “Why begin use?”; “How did the use go?”; “What do you think of the treatment?”; and finally “What are your expectations for when you leave the hospital?”. The focus groups were interviewed in an auditorium made available by the institution to ensure privacy to the participants, until data saturation. The groups were formed according to the availability and interest of the participants. Field observations and notes in a field journal were used as support corpus for the focus groups.

The data from both approaches were collected by graduate and post-graduate students who had been previously trained for such activities. The focus groups, in particular, were conducted by the first author, and the data from those comprised her doctoral thesis.

Quantitative analysis was carried out using the statistical software Statistical Package for the Social Services (SPSS), version 17.0 for Windows. Absolute and relative frequencies were calculated. The qualitative data obtained in focus group meetings were recorded, transcribed, and later submitted to sense interpretation method analysis. Sense interpretation method consists of seeking comprehension, contemplating a hermeneutical attitude, and at the same time, observing critically, with a dialectic attitude, the data generated from research<sup>(12)</sup>.

## Ethical aspects

This study was analyzed and approved by the Human Research Ethics Committee of the UFG Clinical Hospital of the Federal University of Goiás, under protocol number CEPMHA/HC/UFG nº 117/2011. In both approaches, the individuals who agreed to participate in the study signed the informed consent form (ICF).

## RESULTS

### Sociodemographic characteristics

Of 600 total participants, 84.5% were male, 61.5% declare they were brown-skinned, and 66.5% were single. Regarding age, the majority were young, with a mean of 30 years old (min.:18; max.: 68). Regarding education, 42.5% had between five and nine years of study, corresponding to complete or incomplete elementary education, 19.7% had less than five years of study, and 37.8% had more than nine years.

In relation to origin, 50.3% were from other municipalities and almost three-quarters were not employed in the formal

job market, earning an average family income of \$800.00. An additional 20.3% reported having lived on the street at some point in the previous 180 days.

The majority of participants (74.3%) claimed to practice some religion and the qualitative data reaffirmed the need for support/help to continue in abstinence:

I intend to hold my head up high and draw close to God. (P13 – G3)

If it were not for God, I think I would have ended my own life. (P22 – G5)

I tried crack, this terrible drug, and the abstinence only God can cure, but it depends on us to try to communicate with Him. (P39 – G8)

### Pattern of intake of crack and other drugs

As demonstrated in Table 1, only 7.2% of interviewees reported that drug use in their lives began with crack. Marijuana was the first drug chosen in 68.8% of cases, followed by cocaine at 13.7%.

Simultaneous intake of crack and other drugs in the previous 180 days was frequently reported. Alcohol, marijuana, and snorted cocaine were the most used drugs for 68.8%, 64.0%, and 55.3%, respectively.

Regarding the form commonly used to consume crack, pipes predominated (82.2%), followed by cans (69.0%), marijuana cigarettes (46.3%), and tobacco (40.3%).

### Motivations for cocaine/crack experimentation and relapses

Table 2 presents the motivations for cocaine/crack experimentation and relapse after a period of abstinence. Regarding the start of drug use, matters such as curiosity to feel the drug's effect (46.7%), peer pressure (33.5%), and family problems (18.7%) were pointed out. Regarding relapse, difficulty to be without the drug (23.3%), desire to feel the effect again (15.3%), peer pressure (12.7%), and family problems (12%) were highlighted.

The qualitative data confirmed that curiosity was one of the motivations to consume crack/cocaine. However, the participants reported that the lack of marijuana at “bocas de fumo” (street corner dealers) contributed to crack use as this is a strategy used by dealers to make clients dependent on crack and sell drugs to a larger number of users.

*I would look for marijuana, but I couldn't find marijuana, so I got the crack. Many times, I smoked crack because of this, but [...] what I really liked [...] was smoking marijuana,*

**Table 1.** Pattern of crack intake of 600 crack users institutionalized in Goiânia, GO, Brazil, 2012-2013.

| Characteristic  | N   | %    |
|---|-----|------|
| First drug consumed in life <sup>a</sup>  |     |      |
| Marijuana   | 413 | 68.8 |
| Cocaine   | 82  | 13.7 |
| Crack   | 43  | 7.2  |
| Glue  | 17  | 2.8  |
| Merla (crack and honey mixture)   | 13  | 2.2  |
| Other [alcohol, tobacco, loló (ether-based aerosol drug), benzine, paint thinner, chloroform, amphetamines, perfume aerosols, and rebite ("rivet", an amphetamine popular among Brazilian truck drivers)] | 32  | 5.3  |
| Other drugs consumed in the previous 180 days*  |     |      |
| Alcohol   | 413 | 68.8 |
| Marijuana   | 384 | 64.0 |
| Snorted cocaine   | 332 | 55.3 |
| Similar drugs to crack [merla, oxi (cocaine paste mixed with quicklime and kerosene or gasoline) and cocaine paste]   | 138 | 23.0 |
| Other types of drugs (tobacco, glue, paint thinner, solvent, loló)  | 89  | 14.9 |
| Injected cocaine  | 12  | 2.0  |
| Intake frequency of crack and similar drugs <sup>b</sup>  |     |      |
| Used every day, some days more and other days less  | 251 | 42.2 |
| Only used now and again, used when available, without control   | 124 | 20.9 |
| Used the same quantity every day  | 112 | 18.9 |
| Only used now and again, controlled use even when going out to use  | 107 | 18.0 |
| History of crack and similar drug use   |     |      |
| Has spent 30 days without using   | 413 | 68.8 |
| Never stopped using for more than 30 days   | 156 | 26.0 |
| Always used, but with changes in quantity   | 31  | 5.2  |
| While not using crack and similar drugs, continued to use other drugs   |     |      |
| No  | 245 | 40.8 |
| Yes, already used them and continued to do so   | 220 | 36.7 |
| Does not apply  | 117 | 19.5 |
| Yes. Only used to substitute crack  | 18  | 3.0  |
| Used to use mixed drugs <sup>c</sup>  |     |      |
| Yes   | 456 | 76.7 |
| No  | 139 | 23.3 |
| Ways to use crack*  |     |      |
| Pipe  | 493 | 82.2 |
| Cans  | 414 | 69.0 |
| Marijuana   | 278 | 46.3 |
| Cigarette   | 242 | 40.3 |
| Cups  | 31  | 5.2  |
| Other   | 8   | 1.3  |

No information/Missing: 1 participant<sup>a</sup>; 6 participants<sup>b</sup>; 5 participants<sup>c</sup>; \* participant answered more than one option.

**Table 2.** Motivation to start, as well as return to crack use after a period of abstinence, in 600 crack users institutionalized in Goiânia, GO, Brazil, 2012.

| Motivations                                      | Start |      | Return |      |
|--|-------|------|--------|------|
|  | N     | %    | N      | %    |
| Cheap price                                      | 3     | 0.5  | 3      | 0.5  |
| Job loss   | 4     | 0.7  | 6      | 1.0  |
| Came across it, the drug showed up               | 32    | 5.3  | 9      | 1.5  |
| Bad life, no prospects                           | 39    | 6.5  | 33     | 5.5  |
| Other motives                                    | 49    | 8.2  | 66     | 11.0 |
| Emotional losses                                 | 50    | 8.3  | 46     | 7.7  |
| Family problems                                  | 112   | 18.7 | 72     | 12.0 |
| Peer pressure                                    | 201   | 33.5 | 76     | 12.7 |
| Felt desire, curiosity to feel the drug's effect | 280   | 46.7 | 92     | 15.3 |
| Felt difficulty to be without the drug           | *     | *    | 134    | 22.3 |

*but I couldn't find marijuana. Crack was easier to find.* (P8 – G2)

*Curiosity. I saw a friend using and that caught my attention, the form. The guy, puncturing the can, that whole ritual that you have to consume crack, and I was thinking, "I'm going to smoke that stuff there. I'll smoke it to see what it's like."* (P7 - G2)

The qualitative analysis shows that the motivation to use crack, as reported by the participants, emerged after consuming other drugs and not as the first choice for experimentation. It is, however, considered the most impactful, overshadowing the others over time, and turning the participants' lives upside-down.

[...] The gate to everything, in my opinion, is alcohol. I started smoking marijuana, but alcohol and marijuana were the gateway, the trigger, for me to try certain drugs. (P11 -G3)

I was always involved in everything, but usually, and even now, what rattled me most was crack. It took away my desire to study, my desire to work, my desire for everything. (P32 - G7)

Personally, I started with marijuana. Afterward, I discovered merla. Then, merla started to disappear and I began using cocaine [...] (P26 – G6)

Everything started with a little beer. I smoked at parties with a friend and at one of those parties, marijuana [...] (P29 – G6)

Regarding relapse, family conflicts, peer pressure, and desire to use drugs were found to be the most common causes of relapse. The talks that emerged in the focus groups confirmed these factors as important in drug consumption relapse. Another motivation described was disappointment with family members who, according to the participants, did not provide support due to the high number of relapses and hospitalizations. One fact which appears to be specific to the group studied was the ease of use in the treatment institution itself.

*Now we're dating and I'm doing well, but suddenly something happens to you and I'm not close and you relapse and it's that I'll relapse with you. I don't have the strength to take it away from you. Many relationships start inside here, many friendships.* (P3 – G1)

*I would spend a year, two years, without using. Then, when I would start fighting with my sister or my mother, I would resort to the drug.* (P24 - G5)

*My wife when, when I call her, immediately asks, "You're not messing with bad things inside there, are you?" Even though I'm hospitalized, she thinks I might be messing with bad stuff. The support we wish we had, we don't have, you know? ...we're searching for ways to get treated here, making plans... Many times, we aren't even remembering the drugs and family comes and thinks we're at the bottom of the pit, you know?* (P29 – G6)

Because inside here [...] there are the telephones, there are the people who know where to find the cheapest price, there are people talking here about where to find such and

such, that deliver to the door. So, it's not a treatment. (P6 – G1)

The participants stated that after trying crack, they felt an uncontrollable and increasing desire to use it, which characterizes a case of dependency. Such a characteristic contributes to the elevated number of relapses and hospitalizations mentioned by the participants. This may also be observed in the high frequency of individuals who claimed to never have spent more than 30 days without using (Table 1). When dependency begins, uncontrolled search and use occur. To gain access to the drug, many used violence, and the drug was often consumed in the workplace due to the intensity of cravings, creating work and relational problems.

*If you don't give it to me and don't give me what I want, let me tell you, I would turn into a demon. Either I would leave really hurt or the other person would leave really hurt.* (P11 - G2)

*I smoked. I've smoke crack in cans inside the machine [worked with a backhoe excavator] [...] I would get a can [...] I would put the ash, put the rock, and would light up. I would put it there and then put my foot back on the accelerator [...]* (P1 – G1)

Next, participants described a phase of depression from regret over the actions taken to obtain the drug. This cycle included short periods of attempts at abstinence through treatment when filled with remorse. These are generally interrupted by disillusionment.

*Look at my arms!* [showing scars from cuts after attempting suicide] *This is abstinence. After smoking everything, doing everything, you think, "What am I going to do?" But it's not worth doing this here, no.* (P37 – G8)

In these situations, suicide attempts, craving behavior, and searching for means of obtaining crack are frequent. The conversations demonstrated that people abusively using or addicted to crack involved themselves in a cycle of uncontrolled use, a period without use due to bodily exhaustion, depression and regret, attempt at abstinence (which is possibly where they were when hospitalized), relapse trigger, and relapse, returning to incessant use.

## DISCUSSION

The sociodemographic characteristics of the participants were similar to those found in the nationwide survey of users of crack and/or similar drugs<sup>(13)</sup>.

The motivations behind the initiation of drug use and relapse were directly related to three main issues: curiosity/desire to feel the drug's effect, peer pressure, and family problems. These issues were also identified in a nationwide survey about crack use<sup>(13)</sup> and in a study conducted with people assisted at a Center of Psychosocial Attention for Alcohol and Drugs (CAPS AD)<sup>(14)</sup>.

In the present study, 68.8% of participants indicated marijuana as their first-choice drug. When asked about drug use in the previous 180 days, alcohol (68.8%) and marijuana (64%) were the most mentioned. Similar figures were observed in the V and VI National Surveys of Psychotropic Drug Use Among Primary and Secondary Education Students of the Public School System in the 27 Brazilian Capital Cities<sup>(15)</sup>.

According to the II National Survey of Alcohol and other Drugs (LENAD), marijuana consumption begins prematurely in adolescence/young adulthood, a phase of extreme curiosity and appreciation of peer groups. Marijuana is the most widely consumed drug by the Brazilian population. Of the adult population, 5.8% claim to have used the substance at some point in their lives. In other words, 7.8 million Brazilian adults, as evidenced by this study. Since alcohol is a licit drug and culturally accepted, teenagers and young adults do not associate its use with inappropriate behavior even though relatives and friends many times demonstrate abusive use<sup>(16)</sup>.

In light of the curiosity to try a new drug, crack is attractive to first-time users for the following reasons: greater availability of the drug, migration from use of injected drugs, ease of use, low cost, high rate of dependency and abuse, and pharmacological bioavailability, among others. Therefore, although crack may not be the drug of first choice, it certainly is most impactful on the user's life since intense and compulsive use is permeated by violence, trafficking, emotional and family losses, marginalization, and drug addiction<sup>(17-18)</sup>.

The beginning of use in adolescence, prevalent in this study and in others, is related to the search for new sensations, social expectations, perception of the substance's high availability, peer perception of substance use, and perception of use approval, which influence use when associated with specific factors of the age group<sup>(19)</sup>.

In relation to family problems, pointed out by 18.7% and 12% of participants as motivators for first use and relapse, respectively, the qualitative data showed that these problems involved violence suffered or witnessed in the family and the stigma and/or lack of support of family to face addiction.

Other studies have similarly identified the family issue as relevant in the process of crack use and dependency<sup>(20-21)</sup>, demonstrating the relevance of this social structure in the formation and influence of these individuals.

In the focus groups, the participants emphasized family disillusionment and experience of suffering as the main

triggers associated with coincidental moments when peer groups offered the drug. On the other hand, relapses after short periods of abstinence were justified primarily because of craving or some disillusionment. Therefore, it is relevant to observe cravings in the first weeks of treatment of users, especially between the period of 10 and 30 days, because a greater desire to use crack again is linked to shorter periods of abstinence<sup>(22)</sup>.

Since participants considered total abstinence a difficult achievement, measures that give more freedom to users and respect their autonomy seem more pertinent. Harm reduction and patient-centered approach is trending in the treatment of drug dependents<sup>(23)</sup>.

Finally, most participants were users of multiple drugs and in different combinations, also known as poly-substance users. This behavior appears to corroborate the multi-causal dependency model because of the interaction between protection and risk factors. In other words, this may be a way to manipulate the intensity and effects of crack, minimizing its negative side effects, such as cravings, and potentializing/prolonging positive effects<sup>(24-25)</sup>.

The limitations of the present study lie in the fact that, although this mixed study brought important and clarifying results, there is still much to be explored about the motivation for first-time use of crack and other drugs and the constant relapses and dependency, as well as the social and economic factors interfering in such situations.

## FINAL CONSIDERATIONS

As observed in this study, the motivation for drug use and relapse after a period of abstinence of individuals in treatment for crack addiction is related to multiple factors that converge on two main points in both approach methodologies: the individual factor, curiosity to feel the drug's effect and desire to feel the effect again; and the social factor, peer pressure and problems/influence of various relatives.

The use of qualitative and quantitative approaches has been encouraged to confirm and complement the results identified, as presented in this study. The mixed method used to evaluate motivations for drug use, as well as motivation to return to the universe of drug addiction, showed convergence between the results, thus strengthening a more extensive comprehension of the phenomenon.

Therefore, the matter of crack and other drug use, as well as situations of post-abstinence relapse, must be viewed beyond drug dependency treatment. Action is necessary to reach the different contexts of life of these individuals and ensure they are truly rehabilitated and able to break free from the social vulnerability in which they find themselves.

In this sense, the nurse, as a member of a multidisciplinary team, and considering the comprehensiveness of care, may

work in actions to both promote teenager health in the School Health Program through prevention of alcohol and other drug use by vulnerable teenagers and in the treatment and rehabilitation of drug users in various social and health contexts.

Moreover, it is important to highlight use of the mixed approach to gain further insight into the studied subject, as data from both methodologies converged and confirmed the obtained results.

New studies are recommended to deepen understanding of the beginning of crack use in the daily life of teenagers and possible mechanisms to protect them and fight this problem.

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