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Characterization of the crack cocaine culture in the city of São Paulo: a controlled pattern of use

ABSTRACT

OBJECTIVE: To characterize the situation regarding crack cocaine use in the city of São Paulo, along with the sociodemographic profile of its users.

METHODOLOGICAL PROCEDURES: Qualitative ethnographic study carried out with an intentional sample of crack cocaine users (n=45) and former users (n=17). The participants were recruited by means of the chain sampling method and they underwent a semi-structured interview guided by a questionnaire, in 2004 and 2005. The combination of each question and its respective responses gave rise to specific reports that were interpreted individually.

ANALYSIS OF THE RESULTS: The predominating profile of the crack cocaine users was that they were single young men of low socioeconomic class and low schooling level, without formal employment ties. The pattern of use most frequently cited was compulsive, characterized by multiple drug use and carrying out illegal activities in exchange for crack cocaine or money. However, controlled use was also identified. This consisted of non-daily use of crack cocaine mediated by individual factors that were developed intuitively by the user. Controlled use was similar in nature to the strategies adopted by former users to achieve a state of abstinence.

CONCLUSIONS: The culture of crack cocaine use has undergone changes regarding the pattern of use. Although most users do so compulsively, the existence of controlled use was observed. This deserves to be investigated in more detail, particularly with regard to the strategies adopted to attain this.

DESCRIPTORS: Crack Cocaine. Substance-Related Disorders, prevention & control. Socioeconomic Factors. Health Knowledge, Attitudes, Practice. Qualitative Research.

INTRODUCTION

The first reported use of crack cocaine in the city of São Paulo was in 1989.[7] The profile of crack users, described for the first time by Nappo et al,[17] was that they were young men of low schooling level, without formal employment ties. Because of the effects of crack, it was rare for users to consume it just once: they kept on using it until they were physically, psychologically or financially wrecked.[17,18] As seen in the United States,[10,11,20] users' thoughts were focused on crack consumption, such that sleep, food, affection, sense of responsibility and survival lost their meanings. Another paper by Nappo et al[18] showed that, because of users' cravings for the drug and their lack of money, they found

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themselves obliged to take part in illegal activities (drug trafficking, robbery and assault). This situation worsened with the inclusion of women in crack culture:[a] through exchanging sex for crack or money, they exposed themselves to the risk of infection by HIV and other sexually transmissible diseases (STDs).[18] Taken together, these attitudes interfere with crack users' health and social functioning such that they become marginalized, within both the microsocial context (like in user networks) and the macrosocial context (communities and health service systems).[4]

Although the situation is alarming, the existence of controlled use of crack cocaine has been identified in the United States. This is characterized by rational, non-daily long-term consumption in which the user, through self-control strategies, has not allowed his need for the drug to govern his life.[8] At first in Brazil, this controlled use was not detected among crack users.[17,18] The use of crack has persisted in Brazil,[b] despite the severe problems that it causes to those who consume it, such as marginality, criminality and devastating physical and psychological effects. Thus, it is suspected that the culture of crack use may have undergone changes since the time when it was first described in the city of São Paulo, published 11 years ago.[17,18]

Thus, the general objective of the present study was to characterize the situation of crack cocaine use in the city of São Paulo, along with the sociodemographic profile of its users.

METHODOLOGICAL PROCEDURES

In a qualitative approach, the phenomenon (the subject under investigation) is identified from the values or beliefs held by an individual or group, or how the phenomenon is represented.[16] Therefore, in the present study, an intentional sample[23] was built up from cases that were rich in information, i.e. crack users and former users of both sexes and over 18 years of age. Crack users and former users were taken to be individuals who had consumed crack at least 25 times over their lifetimes, thus avoiding inclusion of beginners.[21] Former users needed to have abstained from use for at least six months prior to selection.

Sixty-five subjects were selected, of whom 47 were users and 17 were former users. Out of this total, three users were subsequently excluded because they dropped out of the study, and thus 62 statements were obtained. The sampling sought to include all the profiles that met the preestablished criteria, until reaching the point of theoretical information saturation, at which time the selection was halted.[22,23]

The data collection took place from mid-2004 until the start of 2005. The sample selection was mediated by key informants: specialists who facilitated the investigators' approaches to the target population and provided support for drawing up the interview questionnaire.[23] Subjects were then recruited using a chain sampling technique, with emphasis on snowballing,[1] thereby building up 15 chains of participants. Most of the chains were built up within the community, and few participants came from treatment centers or other intervention programs.

The main data collection instrument was a semistructured interview. This was conducted in depth, directed by a questionnaire. Some questions had previously been standardized in order to allow comparison of responses between the subjects, while others were deepened or were inserted during the interview.[5] Given that the focus of the study was to characterize crack consumption overall, along with the profile of its users, the plan for the interview covered the following topics: the user's sociodemographic profile, manner and pattern of use (in terms of frequency and quantity), effects (positive and negative), associations between crack and other classes of drugs, activities undertaken by the user because of the need for crack and consequences for the user's life resulting from his consumption.

After transcription, each interview was identified with an alphanumeric code signifying, in sequence: initial letter of the interviewee's name; interviewee's age; interviewee's sex (M or F); and crack use situation at the time of the interview, i.e. whether the interviewee was a user (U) or former user (E). A specific software program was created to tabulate the data, such that the set of each question and its respective responses would originate specific reports that were individually evaluated and interpreted.[16]

The interviews held under anonymous conditions and lasted for an average of 88 min. They were recorded with the interviewee's prior agreement, after the individual had read and accepted the free and informed consent statement. The study was approved by the Research Ethics Committee of the *Universidade Federal de São Paulo/Hospital São Paulo*.

ANALYSIS OF THE RESULTS

Most of the sample consisted of men. Most of the participants were young and single, of low socioeconomic class and low schooling level, and without formal employment ties, as in the first descriptions of crack culture published almost 11 years ago[17,18] (Table).

[a] Nappo AS, Sanchez Z, Oliveira LG, Santos SA, Coradete Jr, Pacca JCB, Lacks V. Comportamento de risco de mulheres usuárias de crack em relação às DST-AIDS. São Paulo: Centro Brasileiro de Informações sobre Drogas Psicotrópicas; 2004.

[b] Centro Brasileiro de Informações sobre Drogas Psicotrópicas - CEBRID. II Levantamento Domiciliar sobre o uso de drogas psicotrópicas no Brasil: estudo envolvendo as 108 maiores cidades do país. São Paulo; 2007.

Table. Sociodemographic profile of crack users and former users. São Paulo, Southeastern Brazil, 2004-2005. N=62

Variable	User	Former user	Total
Sex			
Male	34	12	46
Female	11	5	16
Age group			
15-25	14	5	19
25-35	19	7	26
35-45	9	4	13
45 and over	3	1	4
Marital status			
Single	18	6	24
Married	8	6	14
Separated	18	5	23
Widowed	1	0	1
Schooling			
Illiterate	2	1	3
Elementary school incomplete	14	6	20
Elementary school completed	14	1	15
High school completed	12	8	20
University level completed	0	1	1
Postgraduate education	3	0	3
Religion			
Atheist	2	1	3
No religion	11	2	13
Catholic	13	10	23
Protestant	14	2	16
Spiritualistic	4	1	5
Syncretic	1	1	2
Currently working			
Yes	19	10	29
No	26	7	33

Almost all the interviewees started their use of drugs with alcohol and tobacco, and they reported that they had used up to 14 different substances recreationally over their lifetimes. Among these substances, crack was chosen as the preferred drug because of its high power for inducing dependence.[3]

Almost all the interviewees said that, among the different ways of taking cocaine, the effects of crack were the fastest to start, shortest and most intense. This information is compatible with the pharmacokinetic differences between these routes.[2,10]

"*Because it's not a drug that leaves you crazy for hours. It's quick; it's a drug that hits you there and it's only for minutes (...)*" (N19MU)

The interviewees suggested that the effects of crack could be divided into two categories: psychological and physical. The psychological effects occur in two distinct stages and always in the same order, i.e. firstly the positive effects (of pleasure) followed by the negative (unpleasant) effects, as already described by Nappo et al.[17]

"*It was like I was stepping on the clouds at God's side. Imagine the situation, using drugs next to God. It was like paradise: everything was fine, there were no problems (...)*" (F17FE)

The negative effects (hallucinations, deliria, uncontrollable craving for repetition and feelings of depression and regret) are commonly associated with feelings of persecution (paranoia), provoking intense fear and anguish among users and stimulating them to adopt atypical repetitive behavior that alleviates this condition: opening and closing doors and windows; turning lights on and off; and incessantly searching for remainders of crack that might have been dropped in the place where it was used; among others.

In addition to the psychological effects, physical effects were reported, which can be divided into motor and visceral. The motor effects consist of involuntary muscle contractions, particularly on the face. These, accompanied by intense protrusion of the eyeballs, ensure that crack users have a striking expression of panic on their faces, as already described by Siegel,[21] which serves as a potent social identifier.

"*It was incredible. Before burning the first rock, I was saying, like, let's make our last smile, because the smiles ended: the transformation of the facial expression was incredible. Everything changed (...)*" (J30MU)

The visceral responses were reported as involuntary manifestations of the gastrointestinal system, mediated by episodes of flatulence, diarrhea and vomiting, which were readily awakened by simply thinking about crack or recalling the time when it was being used.

"*Just thinking about it is enough to give me a bellyache, a feeling of wanting to vomit (...) I've even gone looking for the drug while vomiting (...) I was so desperate to smoke that I saw I'd shit in my pants (...)*" (A28MU)

Differing from previous studies,[17,18] which emphasized the compulsive pattern as the only type of use, the present study suggests that a controlled pattern exists. This is characterized as rational and non-daily use of crack and it has less severe individual and social implications. It softens the stereotype that previously was associated with crack users, who were recognized as irresponsible, unproductive and aggressive individuals.

Among the consumption patterns that were identified, compulsive use was still the most frequent type. This consisted of daily consumption of crack and could extend for up to nine days continuously. Such use generally only finished when the user reached physical or psychological exhaustion or his money ran out, thereby corroborating preceding studies.[11,18,20]

"*I didn't even count the days, because it was all the time (...) Day often ran into night without any stop (...)*" (M39ME)

Produced by the incessant search for positive effects, compulsive use of crack was characterized by multiple drug use and undertaking illegal activities because of lack of money to buy crack. This situation contributed negatively to the users' condition, which was already socially marginal.

Illegal activities

Since the craving for crack provoked a feeling of urgency, users rapidly ran out of money and found themselves obliged to undertake activities outside of the legal work market, thus compromising their liberty and physical integrity. The interviewees reported that they had undertaken very many illegal activities, such as prostitution, drug trafficking, robbery, kidnapping, selling not only their own but also their families' belongings and financial scams of various natures, in the same way that has been reported in relation to crack culture in the United States.[6] Since the activity of prostitution now presented some innovations in the way it was conducted and the associated risks, the present study has only detailed this activity.

Half of the women interviewed reported that they had already prostituted themselves in exchange for crack. Although it had already been suggested during the early days of the appearance of crack culture in the city of São Paulo that this activity was occurring,[17,18] some changes were observed in the present study. Compulsory prostitution was now identified, in which men "lent" their wives to drug traffickers or to other users in exchange for crack, in such a way that the period of the loan and the number of rocks were agreed at the time of the negotiation.

"*I already saw the guy exchanging a woman for crack. He said 'you can have a night with her and give me a quota' and she accepted and stayed with the guy. He just had to give a quota and the woman stayed there (...)*" (L39ME)

In addition to new types of prostitution, this activity has ceased to be exclusively female. The men who were interviewed who had already exchanged sex for crack did not declare that they were homosexual, but almost all of them had had sex with other men.

"*I was in the street, in the small hours, crazy to use crack, and this guy appeared. 'Hey, big boy, come here coz I want to suck you off', if you've got money then you took too long to be here (...)*" (R24MU)

Among the men, the recompense was frequently in money, but it was possible to exchange sex directly for crack, particularly with fellow drug users. There was no fixed price for a session, nor were there any established locations for prostitution. Oral sex was the most common practice, considering that according to the interviewees, it was the type of sexual activity that would least compromise their sexuality. In the United States, female prostitution has already been extensively reported and male prostitution has recently been identified.[12,15] Maranda et al[15] suggested that there were different etiologies for the two types of prostitution. That is, while female prostitution was exclusively the product of the craving for crack, male prostitution seemed to be the combined product of the craving and the increased sexual libido induced by crack. This distinction deserves more detailed analysis in future studies.

Combination of drugs

Multiple drug use is another striking characteristic of the present compulsive pattern of use, overwhelmingly replacing the single drug use that was reported in the first description of crack culture in the city of São Paulo.[17] Although recorded in the literature,[9,14,19,20] the underlying reasons for multiple drug use have always remained unclear. According to the interviewees in the present study, multiple use arose as a possibility for manipulating the intensity or duration of the effects of crack, either as a palliative for the negative effects or for the purposes of intensifying or prolonging the positive effects. The associated drugs that were most often cited were: alcohol, marijuana and cocaine hydrochloride.

Alcohol has been used as a palliative for the negative effects of crack,[14,18,19,20] as illustrated by the following quotation:

"*(...) drink calms me down: so I don't think about smoking anymore, I go to a bar and have a beer (...) If I don't drink, I get nervous. I walk all around the city until I find a place where I can have one (...)*" (J39MU)

According to the interviewees, alcohol consumption created cycles of alcohol and crack use, such that one drug would start to stimulate the use of the other and vice versa.[14] Regarding the order in which they were used, all the interviewees reported consuming alcohol after taking crack. According to Gossop et al,[9] this order would diminish the benefits of the association, since the vasoconstrictor effects of cocaine would decrease the absorption of the alcohol. Along general lines, the actions of alcohol seem to be mediated by the formation of cocaethylene, a metabolite of cocaine that is formed

in the presence of alcohol. It has a longer half-life than cocaine but similar effects, and this would increase the duration of intoxication, thereby putting the user's health at greater risk.[2,19]

Also according to the interviewees, marijuana was used as a palliative for the negative effects of crack.[8,12] Because of these effects, Labigalini Jr. et al[13] indicated that using marijuana was an important strategy for reducing the damage associated with chronic use of crack, such that it diminished the craving and the other symptoms associated with the syndrome of abstinence from crack. This would, over the long term, make it possible to reintegrate users socially and into productive work.

"*(...) I spend my 10 or 20 reais on crack and then smoke a joint to calm down (...) If only because afterwards you're going to slow down so you can arrive home with a good face (...)*" (JL27MU)

Although marijuana does not interfere with the intensity of the positive effects, it seems to prolong the duration of the effects, whether taken simultaneously (as a mixture) or after using crack (in the form of a joint).

"*(...) with marijuana, it's longer lasting: if it was 5 minutes before, it becomes 10 minutes with marijuana and you get higher (...)*" (F26MU)

Combined use with cocaine hydrochloride (snorted) increases the intensity and duration of the positive effects,[9] as well as acting as a palliative for the negative effects. Its use among crack users is so great that, according to Gossop et al,[9] it may exceed the frequency of use among individuals using this substance alone.

"*I was using a lot of crack and when I finished, I still had that craving, and cocaine brought it down. Otherwise, you end up doing stupid things (...)*" (M22MU)

Other drugs were used in combination with crack to intensify its positive effects (such as trihexyphenidyl) or as a palliative for the negative effects (such as benzodiazepines and inhalants). Trihexyphenidyl is a synthetic anticholinergic substance and it is used medically to treat the symptoms of Parkinson's disease and to control the extrapyramidal symptoms secondary to the use of neuroleptic drugs. It acts on the central nervous system and makes it possible for there to be significant psychological effects like euphoria and an intensification of physical sensations (hearing, sight or touch). There have already been reports of its recreational use among crack users.

A few of the interviewees reported that they only used crack. This was the most prevalent form of consumption at the time of the first description of crack culture in São Paulo.[17] The prevalence of crack use alone in the present study was low. Using crack alone resulted mainly from an appreciation of the sensations created. In addition to this reason for only using crack, there was a disbelief that other drugs might in any way boost or soften the effects of crack. Another reason was lack of knowledge and/or fear of the consequences resulting from possible associations.

"*(...) you can't use crack together with anything: it's crack alone (...) It destroys you and takes you down to the bottom of the hole, but it's crack alone: there's no other drug with it (...)*" (V45ME)

Regarding legal drugs (alcohol and cigarettes), the interviewees reported that they used these more frequently and in greater quantities after they had used them as associated drugs. They could, over the long term, replace crack as the preferred drug.

"*I didn't use alcohol before, but today I can't leave Butantã and come to Hospital São Paulo without stopping in a bar to have a beer.*" (R24MU)

On the other hand, the use of other illegal drugs decreased after these subjects started using crack, particularly marijuana and cocaine hydrochloride (snorted), although they were used as associated drugs. Thus, if they did not have the money to buy other drugs, their preference for crack became clear:

"*(...) I've been drawn towards using crack more and more, but I've been cutting back on the other drugs (...) If I've got the money to buy crack, why should I buy cocaine if crack makes me higher?*" (E23ME)

Controlled use

Although the compulsive pattern is still most common, controlled use of crack has been identified, resembling what has already been described in the United States.[8] Although controlled use had already been observed among users of cocaine hydrochloride (snorted) in the city of São Paulo, crack users were unable to keep control over their use, particularly because of the craving associated with crack use.[18]

The controlled pattern was characterized by non-daily use of crack and was commonly reconciled with pre-existing social activities (relating to the family, school activities and work), thus protecting the user from marginalization.

"*I would get up early every day, go to work normally, go running at weekends, go to dances with my girlfriend: that's to say, I had other things to keep my head busy with, so there was little time left over to think about crack (...)*" (JL27MU)

The controlled users did not mention any practices of illegal activities, and this allowed them to retain some sense of order in their lives,[8] such that they expressed themselves contrary to the typical pharmacological and physiological factors of crack dependence.[3,10]

"*Dirty, blanket over my shoulders, shoeless (...) I said no, for the love of God, I don't want this. I will never sell my things, take out something from me so I can smoke (...)*" (A30MU)

Controlled consumption was usually identified among users who had already gone through the compulsive phase of crack use. The transition from the compulsive to the controlled phase occurred after years of consumption, at a time when the individual became aware of the implications and the concessions made towards continuing to use crack. A belief that they were no longer in a physical, psychological or moral condition to deal with the consequences from their own consumption, along with observation of disastrous lives of their fellow users, was the main factor "waking up" the individual to life and directing him towards controlled use or even abstinence.

"*(...) the horny feeling that crack gives: there's nothing like it. I'm sorry I can't, that's to say, I could but it's just that I would have to deal with the consequences, and I'm not prepared to do this anymore (...) Once is enough, making a mistake twice is stupidity (...)*" (R24MU)

Reports from compulsive users in which they said they knew of crack users who kept control over the drug reinforced the fact that controlled use exists.

"*I have a friend of mine who make recreational use. He doesn't have any problem: perhaps for half an hour he's like a trembling addict, but then he's back to normal (...)*" (P29FU)

Although a minority of the interviewees had reduced their frequency and quantity of use by means of external intervention methods (e.g. religious treatment, medications or psychotherapy), the others achieved a controlled pattern through self-control or self-regulation strategies that were individually and intuitively developed. In other words, these consisted of individual strategies: internal protection factors developed by the user himself, based on his own beliefs and values. Thus, it is believed that such strategies could be efficiently incorporated into damage reduction programs, thereby minimizing the implications for life that are associated with compulsive use.

In fact, the use of these strategies was also reported by former users, at the time they were using crack. These strategies are thus a possible means of achieving a state of abstinence and are therefore a relevant tool for therapeutic intervention programs.

Among the strategies adopted, the following were mentioned:

1. Replacement of the crack rock with "milder" forms of consumption (e.g. crack mixed with tobacco or marijuana) or through the use of other psychotropic substances.

   "*I was getting very thin, so I started to use it two or three times a week, but to control it I compensated with drink (...)*" (M22MU)

2. Removal from the social context of crack. This is an efficient intuitive strategy, since one of the reasons that leads to renewed use is the "environmental trails" associated with it, such as the place where crack is consumed and fellow users.

   "*(...) because I wasn't going to places I used to visit, I avoided people who were using crack (...)*" (P30MU)

3. Reprogramming of thoughts and behavior, especially at idle moments.

   "*Crack is occupying a smaller space in my life now. I'm managing to have moments of leisure: I got back in touch with the skateboard guys and now I've also got a girlfriend (...)*" (A28MU)

4. Decreased use of drugs that are known to interfere with the effects of crack and/or the frequency and quantity of use. This step seems to be subsequent to strategy 1 in the process towards achieving controlled use.

   "*That's when I reduced the alcohol, because it was giving that anxiety about messing with crack. And if you're not drinking, you're not disturbed by that desire (...)*" (J41MU)

Although some of the strategies for achieving controlled use appear contradictory, particularly regarding items 1 and 4 (because they stimulate and reduce, respectively, the use of other substances that interfere with the use of crack, like alcohol), there is a need for studies describing these strategies in depth and identifying a possible chronological order between them, thus categorizing them as steps within a broader recovery process.

CONCLUSIONS

In the city of São Paulo, the culture of crack use has undergone considerable changes over these 11 years since it was first described. The sociodemographic profile of the users is practically the same and most use is still compulsive, with significant physical, moral and social impairment among them. Sole use of crack has overwhelmingly been replaced by associations between crack and other drugs, thus characterizing users in the city of São Paulo as multiple drug users. Multiple drugs were initially used to modulate the positive and negative effects of crack, but this has added multi-dependence and comorbidities to the psychiatric state that already existed. In addition to making it difficult to identify the severity of crack use, multiple drug use makes it difficult for patients to adhere to possible therapeutic interventions, and for these to be successful.

In parallel, the sensation of urgent need for crack has stimulated users to undertake illegal activities. This intensifies the process of social marginalization and the risks to the individual's liberty and physical, psychological and moral integrity. Prostitution is highlighted: since this has extended to men, it predisposes crack culture to significant risks.

Taken together, the implications associated with crack use constitute an important public health problem. Intervention programs and public policies need to be developed to control it. On the other hand, the present study has indicated that controlled use of crack exists, with characteristics differing from compulsive use. This consists of a crack use that is more rational, with fewer individual and social implications. The strategies that were intuitively developed were similar to the measures adopted by former users to reach a state of abstinence. These are important alternatives for damage reduction and even for halting the use of crack.

Along general lines, it is emphasized that information for reducing the damage or for achieving abstinence may come from the crack user himself, who has the specific knowledge. This indicates the need for detailed studies in this respect.

REFERENCES

1. Biernacki P, Waldorf D. Snowball sampling-problems and techniques of chain referral sampling. *Sociol Methods Res.* 1981;10(2):141-63.
2. Chasin AAM, Mídio AF. Exposição humana à cocaína e ao cocaetileno: disposição e parâmetros toxicocinéticos. *Rev Farm Bioquim Univ São Paulo.* 1997;33(1):1-12.
3. Chen CY, Anthony JC. Epidemiological estimates of risk in the process of becoming dependent upon cocaine: cocaine hydrochloride powder versus crack cocaine. *Psychopharmacology (Berl).* 2004;172(1):78-86. doi:10.1007/s00213-003-1624-6
4. Clatts MC, Welle DL, Goldsamt LA, Lankenau SE. An ethno-epidemiological model for the study of trends in illicit drug use: reflections on the "emergence" of crack injection. *Int J Drug Pol.* 2002;13(4)285-96. doi:10.1016/S0955-3959(02)00123-8
5. Creswell JW. Qualitative inquiry and research design: choosing among five traditions. Thousand Oaks: Sage Publications; 1998.
6. Cross JC, Johnson BD, Davis WR, Liberty HJ. Supporting the habit: income generation activities of frequent crack users compared with frequent users of other hard drugs. *Drug Alcohol Depend.* 2001;64(2)191-201. doi:10.1016/S0376-8716(01)00121-1
7. Dunn J, Laranjeira RR, Silveira DX, Formigoni ML, Ferri CP. Crack cocaine: an increase in the use among patient attending clinics in São Paulo 1990-1993. *Subst use Misuse.* 1996;31(4):519-27. doi:10.3109/10826089609045824
8. German D, Sterk CE. Looking beyond stereotypes: exploring variations among crack smokers. *J Psychoactive Drugs.* 2002;34(4):383-92.
9. Gossop M, Manning V, Ridge G. Concurrent use of alcohol and cocaine: differences in patterns of use and problems among users of crack cocaine and cocaine powder. *Alcohol Alcohol.* 2006;41(2):121-25. doi:10.1093/alcalc/agh260
10. Hatsukami DK, Fischman MW. Crack cocaine and cocaine hydrochloride. Are the differences myth or reality? *JAMA.* 1996;276(19):1580-8. doi:10.1001/jama.276.19.1580
11. Inciardi JA, Lockwood D, Pottieger AE. Women and crack-cocaine. New York: Macmillan Publishing Company; 1993.
12. Inciardi JA, Surratt HL. Drug use, street crime and sex-trading among cocaine-dependent women: implications for public health and criminal justice policy. *J Psychoactive Drugs.* 2001;33(4):379-89.
13. Labigalini Jr E, Rodrigues LR, Silveira DX. *J Psychoactive Drugs.* 1999;31(4):451-5.
14. Magura S, Rosenblum A. Modulating effect of alcohol use on cocaine use. *Addict Behav.* 2000;25(1):177-22. doi:10.1016/S0306-4603(98)00128-2
15. Maranda MJ, Han C, Rainone GA. Crack cocaine and sex. *J Psychoactive Drugs*. 2004;36(3):315-22.
16. Minayo MCS. O desafio do conhecimento científico: pesquisa qualitativa em saúde. Rio de Janeiro: Hucitec; 1994.
17. Nappo SA, Galduróz JC, Noto AR. Crack use in São Paulo. *Subst Use Misuse.* 1996;31(5):565-79. doi:10.3109/10826089609045827
18. Nappo SA, Galduróz JC, Raymundo M, Carlini EA. Changes in cocaine use as viewed by key informants: a qualitative study carried out in 1994 and 1999 in São Paulo, Brazil. *J Psychoactive Drugs.* 1999;33(3):241-53.
19. Pennings EJ, Leccese AP, Wolff FA. Effects of concurrent use of alcohol and cocaine. *Addiction.* 2002;97(7):773-83. doi:10.1046/j.1360-0443.2002.00158.x
20. Siegel RK. Cocaine smoking. *J Psychoactive Drugs.* 1982;14(4):271-359.
21. Siegel RK. New patterns of cocaine use: changing doses and routes. In: Kozel, N, Adams EH, editors. Cocaine use in America: epidemiologic and clinical perspective. Rockville: National Institute on Drug Abuse; 1985.
22. Victora CG, Knauth DR, Hassen MNA. Pesquisa qualitativa em saúde: uma introdução ao tema. Porto Alegre: Tomo Editorial; 2000.
23. World Health Organization. Qualitative Research for health programmes. Geneva; 1994.

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