Original Article

Vulnerability to sexual risk behavior in users of alcohol and other drugs

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Objectives: to evaluate the association between alcohol use and other drugs, socio-demographic variables and psychosocial aspects, with the users risky sexual behavior. Methods: cross-sectional quantitative research, interviewed 110 users of a Center for Psychosocial Care in Alcohol and Other Drugs (CAPSad) with the Global Assessment of Individual Needs instrument. The Sexual Risk Scale, sociodemographic characteristics, days of drug use and other subscales of instrument were used. Results: risky sexual behavior was significant in users who were more days on crack use, in homeless and more severe in psychosocial aspects. Conclusion: daily users factors have important influences on sexual risk behavior and sexually transmitted diseases.

Descriptors: Sexual Health; Risk Factors; Disorders Related to Substance Use; Disorders Related to Alcohol Use.

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Vulnerabilidade para o comportamento sexual de risco em usuários de álcool e outras drogas

Objetivos: avaliar a associação entre o uso de álcool e outras drogas, variáveis sóciodemográficas e aspectos psicossociais, com o comportamento sexual de risco dos usuários. Métodos: pesquisa quantitativa transversal, entrevistados 110 usuários de um Centro de Atenção Psicossocial em Álcool e outras Drogas (CAPSad) com o instrumento Avaliação Global das Necessidades Individuais. Utilizou-se a Escala de Risco Sexual, características sociodemográficas, dias de uso de drogas e demais subescalas do instrumento. Resultados: o comportamento sexual de risco foi significativo em usuários que estavam a mais dias em uso de crack, em situação de rua e mais graves em aspectos psicossociais. Conclusão: fatores do cotidiano dos usuários tem influências importantes sobre o comportamento sexual de risco e doenças sexualmente transmissíveis.

Descritores: Saúde Sexual; Fatores de Risco; Transtornos Relacionados ao Uso de Substâncias; Transtornos Relacionados ao Uso de Álcool.

La vulnerabilidad a la conducta sexual de riesgo en las usuarias de alcohol y otras drogas

Objetivos: evaluar la asociación entre el consumo de alcohol y otras drogas, variables sociodemográficas y aspectos psicosociales, con los usuarios de comportamientos sexuales de riesgo. Métodos: transversal de investigación cuantitativa, entrevistó a 110 usuarios de un Centro de Atención Psicosocial en Alcohol y Otras Drogas (CAPSad) con el instrumento de Evaluación Global de Necesidades Individuales. Se utilizaron la Escala de Riesgo Sexual, las características sociodemográficas, los días de consumo de drogas y otras subescalas del instrumento. Resultados: el comportamiento sexual de riesgo fue significativo en usuarios que estuvieron más días en el uso de crack, en personas sin hogar y más graves en aspectos psicosociales. Conclusión: los factores diarios de los usuarios tienen importantes influencias en el comportamiento de riesgo sexual y las enfermedades de transmisión sexual.

Descriptores: Salud Sexual; Factores de Riesgo; Trastornos Relacionados Uso de Sustancias; Trastornos Relacionados Con el Consumo de Alcohol.

Introduction

Sexually Transmitted Diseases (STDs) are currently a major focus of public health prevention. Sexual risk behavior is considered one of the main means of transmission of these diseases, since injectable drug use, which used to be the main route, has been limited in Brazil, and the cooperation of harm reduction policies have significantly reduced these infections[1].

Vulnerability to this type of risk behavior may be related to individual, social and programmatic factors. Individual factors represent the quantity and quality of information a person has, as well as their ability to incorporate it into everyday life and make it protective. Social factors are measured according to the available resources so that one has access to information, such as schooling and communication. And the programmatic factors occurs according to the social resources offered to the person so that he/she is not exposed to the illness

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process; these factors do not work in a democratic and effective manner(2).

Drug use in general has been of great importance in the area of sexual risk behavior and has been represented by multiple partnerships, unprotected sex and exchange of sex for drugs or money. Most users reported never having tested for HIV. Crack use is negatively related to adherence to STD treatment and to the use of antiretrovirals. In addition, in the Brazilian capitals, almost half of the users are homeless, a situation that also indicates vulnerability to sexual risk behavior(3-4).

Considering the social and cultural interference that the use of alcohol and other substances causes, the relation between this dependence and the increased risk to other diseases is getting closer and this is very clear with respect to the STDs(5). Knowledge of the factors that can stimulate sexual risk behaviors is one of the crucial aspects for the promotion of health and prevention of injuries(2).

The Brazilian Ministry of Health (MoH) Policy for Comprehensive Care to Users of Alcohol and Other Drugs(6) states that the social, psychological, economic, and political implications that lead to drug use and dependence are evident and should be taken into account in the overall understanding of the problem. In this way, services called Psychological and Social Care Centers on Alcohol and Other Drugs (CAPSad) were created, which offer specialized care with support of a multidisciplinary team based on preventive aspects, health promotion and individualized treatment in relation to use of drugs and their effects(7).

To that end, instruments have been developed and adapted in an attempt to overcome this difficulty of intervention and access to these people, seeking to individualize the object of action in order to achieve personalized diagnoses and actions, considering that the relationship with alcohol and other drugs is different for each individual(8).

Thus, this study aims to evaluate the possible associations between the use of alcohol and other drugs and sexual risk behavior, as well as socio-demographic variables, mental health, physical health and other psychosocial aspects of users, measured by the items of the GAIN instrument.

Methods

a) Study design

This is a cross-sectional study with quantitative approach.

A convenience sample was composed by users of alcohol and other drugs that had started treatment in a CAPSad between March 11 and December 20, 2014 in the city of São Paulo. During this period, 444 users had been attended in the service. Of these, 93 were excluded because they had sought treatment only for tobacco use and 47 were not in the age range estimated for the research, resulting in a sample of 304 eligible individuals. Of these, 128 accepted to participate and only 110 had their interviews ended successfully, resulting in loss of approximately 15%.

b) Data collect

The data collection was carried out with the users of the facilities of CAPSad through the application of the Global Appraisal of Individual Needs (GAIN-I)(9), which is a standardized biopsychosocial assessment tool that seeks to identify the needs of alcohol and drug users based on objective and verbal responses on several exposure factors, distributed in eight domains: Background; Substance use; Physical health; Risk behaviors and disease prevention; Mental and emotional health; Environment and living situation; Legal Aspects; and Vocational Aspects. The complete instrument has more than 108 scales and items divided into the domains mentioned above. It provides information to help professionals in clinical practice, facilitating the diagnosis and planning of care(8).

In the present study, one's severity was used as a control variable for the statistical model. We calculated the severity through a general score of the General Individual Severity Scale, which is composed of 15 subscales of the GAIN-I (Substance Dependence Scale, Substance Abuse Index, Substance Issues Index, Somatic Symptom Index, Depression Symptom Scale, Homicidal/Suicidal Thought Scale, Anxiety/Fear Symptom Scale, Traumatic Distress Scale, Inattentiveness Disorder Scale, Hyperactivity-Impulsivity Scale, Conduct Disorder Scale, General Conflict Tactic Scale, Property Crime Scale, Interpersonal Crime Scale and Drug Crime Scale)(9).

In Brazil, the present instrument was the focus of validation studies(10-11) when a cross-sectional study aimed at measuring the relationship between mental health, crime and violence-related problems and substance use(12).

In order to preserve participants' privacy, as well as to their comfort, a single collector conducted the interview, allowing breaks and sometimes postponement for other dates, since it was a long interview, often occurring schedule conflict or even fatigue on the part of participants.

c) Statistical analysis and presentation of data

AGAIN-I ABS data was exported to the Statistical Package for the Social Sciences (SPSS), Statistics 20 for Windows®. A descriptive analysis was performed, as well as an analysis of association between the chosen independent variables: Days of crack use, Days of cocaine

use, Tobacco use, General Mental Suffering Scale, Social Network, Street Situation, General Individual Severity Scale, General Victimization Scale, Legal Problems and Age. The dependent variable was the "Sexual Risk Scale" score that composes the instrument.

For the association between the variables, univariate regression analyzes of Ordinary Least Squares (OLS) were performed with each of the independent variables and a final multiple analysis. The objective of the OLS regression is to predict a response variable (dependent variable) from one or more explanatory variables (independent variables), which reduces the error (sum of the square of the errors), resulting in a regression line as close as possible of all data of the studied parameters[14].

The univariate regressions of each of the independent variables, which presented $p \leq 0.3$, were included in the multiple model. In the multiple model, in turn, the relationships that had $p \leq 0.05$ were considered statistically significant.

The data were then presented in the form of tables.

d) Ethical aspects

This study followed the ethical aspects provided for in Resolution 466 of 2012 for research with human beings, being submitted and approved by the corresponding Ethics and Research Committee under the review number 809/2009. Participants signed the Informed Consent Form (ICF) before the start of the interview.

Results

The average age of users of alcohol and other drugs interviewed was 33 years and the mean age of first use of drugs at 15 years (minimum age of seven and maximum of 42 years). Most of the sample reported themselves as white, more than 30% of respondents had already been in street situation at some time in their lives, only 17% had never used tobacco and all reported having had sexual activity at least once in their lives. For 44.5%, this was the first treatment episode for alcohol and other drugs. These data can be observed in more detail in Table 1.

Table 1: Characterization of the subjects interviewed with the GAIN-I. São Paulo, SP, Brazil, 2014

Variable/Categories		N	%
Sex	Male	77	70.0
	Female	30	27.3
	Others	3	2.7
Color/Race	Yellow	1	0.9
	White	51	46.3
	Brown	42	38.2
	Black	16	14.5
Street situation	Never	74	67.3
	More than a year ago	9	8.2
	From 1 to 12 months ago	19	17.3
	From 2 days to 4 weeks ago	8	7.2
Smoking	Never	19	17.3
	More than a year ago	11	10.0
	From 1 to 12 months ago	23	21.0
	From 2 days to 4 weeks ago	57	51.9
Sexual Activity	More than a year ago	9	8.2
	From 1 to 12 months ago	56	50.9
	From 2 days to 4 weeks ago	45	41.0
Previous treatment episodes for AOD[a]	Never	49	44.5
	1-3	42	38.2
	4-5	13	11.8
	More than 5	6	5.5
Days of the last 90 in which you felt drunk/ altered by use of AOD[a]	0 - 30	71	64.5
	31-60	20	18.2
	61-90	19	17.3
	Total	110	100.0

Source: Data collection, 2014.
Alcohol and other drugs[a]

O modelo de regressão univariada mostrou que apenas uma variável (uso de tabaco) deveria ser excluída do modelo múltiplo por ter o valor de p menor que 0,3 (30%) (Tabela 2).

Para o modelo múltiplo optou-se por manter a variável uso de tabaco como controle, pois a mesma contribuiu para um maior valor de R quadrado ajustado do que o modelo na qual ela seria excluída, melhorando a qualidade do modelo múltiplo. A tabela 3 abaixo apresenta o modelo múltiplo.

As variáveis dias de uso de crack, estar em situação de rua e a gravidade do indivíduo apresentaram associações estatisticamente significantes com a variável dependente, risco sexual. Este modelo múltiplo explica 32,5% da variação do risco sexual mensurado na amostra estudada.

Table 2: Univariate linear regression models of ordinary least squares. Dependent variable score of the "Sexual Risk Scale". São Paulo, SP, Brazil, 2014.

	Standardized beta	t	p-value	Adjusted R^2
Days of crack use	0.378	4.238	0.000(a)	0.135
Days of cocaine use	0.142	1.488	0.140(a)	0.011
Tobacco use	0.078	0.669	0.506	-0.008
General Mental Suffering Scale	0.254	2.724	0.008(a)	0.056
Social network	0.182	1.918	0.058(a)	0.024
Street situation	0.260	2.794	0.006(a)	0.059
General Individual Severity Scale	0.387	4.285	0.000(a)	0.142
General Victimization Scale	0.252	2.704	0.008(a)	0.055
Legal problems	0.208	2.208	0.029(a)	0.034
Age	-0.190	-2.016	0.046(a)	0.027

Fonte: Coleta de dados, 2014.

p-valor = ≤ 0,3[a]

Tabela 3 – Modelo múltiplo de regressão linear de mínimos quadrados ordinários. Variável dependente escore da "Escala de Risco Sexual". São Paulo, SP, Brasil, 2014

	Standardized beta	t	p-value
Days of crack use	0.315	2.882	0.005(a)
Days of cocaine use	-0.022	-0.192	0.848
Tobacco use	0.004	0.035	0.728
General Mental Suffering Scale	-0.047	-0.259	0.797
Social network	0.034	0.317	0.753
Street situation	0.238	2.044	0.045(b)
General Individual Severity Scale	0.522	2.991	0.004(a)
General Victimization Scale	-0.155	-1.142	0.258
Legal problems	-0.087	-0.757	0.452
Age	-0.101	-0.834	0.408

Source: Data collection, 2014.

(a)Significant at p≤0.05

(b)Significant at p≤0.001

Adjusted R^2: 32.5%

Discussion

Crack was reported in this study as one of the main generators of vulnerability to sexual risk behavior (Table 3). It is considered by the literature as an easily obtained, low-price and easy-to-carry drug[15].

Literature has shown that crack generates anxiety, which is attributed to acts of violence and sexual risk behaviors. This is because the use of the drug exerts important modulation on the psychism and the behaviors in general, leading the user to believe that the drug makes them invulnerable to any risk or suffering[1,16].

Drug abuse is very common among street individuals, in this case, 32.7% of the sample (Table 1). The 2015 census, in the city of São Paulo, estimated that 52.5% of the individuals living on the streets use illicit drugs and 28.7% of those attended by public services also do it[17]. In Rio de Janeiro[1], of the 295 respondents, 65.8% reported having sex with unknown persons and 60.9% reported inconsistent use of condoms under the effect

of drugs. Crack use is often associated with multiple sexual partners in a short time and with high rates of other sexually transmitted infections that favor HIV transmission. In Porto Alegre, of the 161 street children interviewed, 33.7% of those who had had unprotected sex did so under the influence of drugs(18). In Recife, of the 400 drug users evaluated, 22% reported living in the streets, and 27.5% of men and 58.6% of women reported exchanging sex for money and/or drugs(19).

We then realize that the results of this study correspond to a common national problem, especially when it comes to days of crack use and street people as a driving force for sexual risk behavior.

The use of drugs by this population may occur as a result of the multiple experiences that these people have faced, since intoxication offers a means to alleviate suffering and helplessness(18). Drugs are shown as facilitators of the activation of a reward system, which triggers reactions in which daily motivations are no longer necessary, making the individual opt for drugs and thus achieve the ecstasy of satisfaction much more quickly and intensely(20).

This vulnerability is also noticed even among sex workers. Professionals who use crack find difficult to use condoms(18,21). This data corroborates with studies that show that among 252 sex workers, 101 (49%) reported exchanging sex for crack. In São Paulo, female crack cocaine users reported that prostitution is an almost unanimous practice, although not exclusive to them(22).

We understand the relationship between the individual severity scale and sexual risk behavior when a 12-year cohort study shows that of the 131 individuals followed up, 27 (20.6%) of them died during this period and the second highest cause of deaths was AIDS. Thus, being HIV-users who were drug users, they had the least chance of survival over the years(23).

The presence of cocaine in the bloodstream may stimulate the HIV replication process, increasing the viral load and the risk of transmission of this and other STDs, especially by crack users, who are more likely to postpone or reduce demand for health care services(24).

We found that the variable days of crack use, street situation and the individual's severity that influenced the results of this study are predictive of sexual risk behavior, requiring preventive interventions that access this vulnerable and often unseen population by the existing public policies.

As limitations of this study, there is mainly the issue of a small sample (n = 110), a small proportion of women and the fact that the data were collected in only one service, preventing the generalization of the results presented here. In any case, the statistical model used accounts for 32.5% of the variation in sexual risk behavior, bringing important contributions to the health areas in order to raise preventive measures together with quality assistance in all levels of care.

Conclusion

Responding to the objectives of the study, we found that the use of alcohol and other drugs have great influence on the sexual risk behavior of the population seeking treatment in the CAPSad, as this was mainly in street situations and in crack use, data considered present in vulnerability issues of this public.

We could conclude that crack use, street situation and the most severe users are precisely those that need more protection and preventive measures directed at sexual risk behaviors, which emphasizes the importance of articulating STD prevention strategies.

We confirm the need to expand resources on the Harm Reduction Policy, focusing not only on the sharing of objects for the use of substances, but also by guiding and making preventive means available for sexual risk behavior (condoms, specialized services, rapid tests). This can be an important resource to be strengthened both within the territory and within the services.

It is necessary to value the equity described by the SUS so that these populations are fully attended by the health services in order to reduce the vulnerabilities and the severity of the individuals in every way.

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