

# Suffered violence, drug consumption and risk behaviors in homosexual and bisexual individuals

ORIGINAL

Grayce Alencar Albuquerque<sup>1,3</sup>, Cintia de Lima Garcia<sup>1,3</sup>, Jameson Moreira Belém<sup>2</sup>,  
Francisco Winter dos Santos Figueiredo<sup>1,4</sup>, Laércio da Silva Paiva<sup>1,4</sup>,  
Teresa Maria Siqueira Nascimento Arraes<sup>3</sup>, Glauberto da Silva Quirino<sup>2</sup>, Luiz Carlos de Abreu<sup>1</sup>,  
Vitor Engrácia Valente<sup>1</sup>, Érika da Silva Maciel<sup>5</sup>,  
Luis Vinicius de Alcantara Sousa<sup>1,4</sup>, Fernando Adami<sup>1,4</sup>

## Abstract

**Background:** This study examined the prevalence of violence suffered, drug use and risk behaviors in homosexual and bisexual individuals.

**Method:** Cross-sectional, quantitative study involving 296 Lesbian, Gay, Bisexual individuals in the municipalities of Crato and Juazeiro do Norte, South of Ceará state, Brazil.

**Findings:** Psychological/verbal abuse is the most prevalent and depressants of the central nervous system are chosen for consumption after victimization. Depressant and stimulant drugs were associated to dependence and risk behaviors in sexual minorities.

**Conclusion:** Gay and bisexual people use drugs after suffering violence, with an association between drug use and developing risk behaviors. Further investigations inherent in these associations are necessary, since other factors may interact to violence, drug use and risk behaviors in sexual minorities.

- 1 Departamento de Saúde da Coletividade, Disciplina de Metodologia Científica, Laboratório de Delineamento de Estudos e Escrita Científica, Faculdade de Medicina do ABC, Santo André, SP, Brasil.
- 2 Programa de Pós Graduação em Enfermagem. Universidade Regional do Cariri, Crato, CE, Brasil.
- 3 Curso de Enfermagem. Faculdade de Juazeiro do Norte, Juazeiro do Norte, CE, Brasil.
- 4 Departamento de Saúde da Coletividade, Laboratório de Delineamento de Estudos e Escrita Científica, Laboratório de Epidemiologia e Análise de Dados, Faculdade de Medicina do ABC, Santo André, SP, Brasil.
- 5 Centro Universitário Luterano de Palmas CEULP-ULBRA, Palmas, TO, Brasil.

## Contact information:

**Grayce Alencar Albuquerque**

**Tel:** (055) (88)88048714

**Address:** 821. Príncipe de Gales Ave., Príncipe de Gales, Santo André (São Paulo), Brazil.

✉ [geycy@oi.com.br](mailto:geycy@oi.com.br)

✉ [geycyenf.ga@gmail.com](mailto:geycyenf.ga@gmail.com)

## Keywords

Homosexuality. Bisexuality. Violence. Illicit Drugs

## Introduction

Historically, problems related to the use and abuse of psychoactive substances are more prevalent in sexual minorities [1]. It is known that many factors contribute to the abuse of alcohol and drugs in

this group [2]. Sexual Minorities resort to drug use to combat stressors, cope with negative feelings associated with social stigma and face homophobia [3, 4, 5]. Individuals who express a homosexual and bisexual orientation are considered abnormal and deviant and, therefore, become exposed to homophobic attacks, expressed in psychological/verbal, physical and sexual ways [6].

In Brazil, homophobia is characterized as a crime [7, 8]. However, the criminalization of the phenomenon has not reduced the rates of violence against sexual minorities. Data of Gay Group of Bahia show that from 1980 to 2005 about 2,500 gays, transvestites and lesbians were murdered in Brazil, representing, respectively, 72%, 25% and 3% of all deaths [2]. Data are alarming and give to Brazil the shameful title of homophobic crimes champion [2].

Homophobic acts interact to drug use in Lesbian, Gay, Bisexual, and Transgender (LGBT) people and may reflect attempts to deal with stress and trauma resulting from abuse [1]. There is an association between early start to use and abuse of licit and illicit drugs in homosexuals and bisexuals as a result of physical, emotional and sexual abuse suffered [9,10].

So, violence against the LGBT group is considered a serious public health problem [11]. In addition to causing strong impact on morbidity and mortality in this population, violence is gradually damaging the biopsychosocial health of the group members, who start to manifest negative psychological consequences [12], such as low self-esteem, feelings of loneliness, isolation and depression, which can lead to risk behavior, like suicidal behaviors [13].

Despite the already established relationship between violence, drug use and risk behaviors in sexual minorities, studies that include these variables in the Brazilian homosexual and bisexual population are scarce. Difficulties to obtain data on violence against sexual minorities in Brazil are evident, as these crimes are not always monitored and systematized [14]. The lack of this information makes it

difficult to survey epidemiological data on violence suffered, drug use and its consequences in Brazilian LGBT members. The objective was to identify the prevalence of violence suffered, drug use and risk behaviors in a sample of Brazilian homosexual and bisexual individuals.

## Method

This is a cross-sectional, quantitative study, which examined the prevalence of violence suffered, drug use and risk behaviors in homosexual and bisexual people.

The study included 296 gay and bisexual individuals who gave their informed consent and answered a structured questionnaire proposed in four blocks: i) socio-economic profile, ii) suffered violence, iii) alcohol and drug consumption and iv) risk behaviors. Data collection was performed during demonstrations (Gay Parade) in the municipalities of Juazeiro do Norte and Crato, state of Ceará, Brazil, in July 2013.

The variables of description of the socioeconomic profile were: biological sex (male and female), gender identity (male and female), sexual orientation (homosexual and bisexual), education (complete/incomplete primary, secondary and higher education), marital status (single, dating, stable, married, divorced and widowed), existence of formal work (yes or no), age (years old) and monthly income (reais).

To identify the occurrence of violence suffered, we adopted the answer criteria "YES" or "NO" to the types of violence: i) psychological/verbal, ii) physical and iii) sexual.

For identification of drug use, we questioned whether the participant had had positive or negative consumption in the last 30 days to: i) alcohol, ii) tobacco, iii) analgesics, iv) marijuana, v) cocaine, vi) tranquilizers, vii) amphetamine viii) ecstasy, ix) hallucinogens, x) anabolic, xi) and inhalants xii) other psychoactive substances. In order to facilitate the classification of types of drugs consumed by

mechanism of action within the central nervous system (CNS), it was decided to group them into four groups: i) stimulant drugs, ii) depressant drugs, iii) disturbing drugs and iv) other drugs, regarding those who did not fit in any of the previous three classifications.

The adopted classification followed the recommendations of the French researcher Louis Chaloult, that classified drugs in 1971 into three groups: i) CNS stimulants, ii) CNS depressants and iii) disturbing CNS, which, respectively, accelerate brain function, reduce brain activities and distort the user's perception [15,16]. In this classification, regarding the drugs listed in the study, tobacco, painkillers, cocaine/crack and amphetamines are classified as stimulants; alcohol, tranquilizers and inhalants/solvents as depressants; and marijuana, ecstasy and hallucinogens as disturbing. The other drugs category encompassed anabolic and other types consumed.

To identify risk behaviors associated with psychoactive substance use, we asked whether the participants have experienced, under the influence of drugs: i) dependence situations for consumption, ii) health risks to others and iii) risks to their own health. These questions were answered with "YES" or "NO", and the positive responses were equivalent to presence of problems. As a featured risk behavior, we questioned the group about occurrences of suicide attempts, adopting the criterion response "YES" or "NO" to the phenomenon.

The obtained nominal variables were expressed as number of individuals and percentages. We used the chi-square test to analyze the association between nominal variables. The significance level adopted was 95%. The statistical analysis was performed using Stata software version 11.0.

The study was approved by the Research Ethics Committee of the Faculty of Medicine of ABC, under the opinion number 472,279.

## Results

### Socioeconomic profile of the participants

Participants were 296 homosexual and bisexual individuals who identified themselves, mostly, with male biological sex (68.6%), male gender identity (67.6%), homosexual orientation (78.7%) median age of 22 years old, predominantly brown (62.2%), single (62.9%), with complete High School (33.2%), no formal work (54.0%) and median income of 678.00 Brazilian reais (**Table 01**).

**Table 1.** Socioeconomic profile of homosexual and bisexual participants in the study. Juazeiro and Crato, Ceará, Brazil, 2013.

Characteristic	N	%
<b>Sex</b>		
Male	203	68.6
Female	93	31.4
<b>Identity</b>		
Male	200	67.6
Female	93	31.4
Did not answer	1	0.3
Both identities	2	0.7
<b>Sexual Orientation</b>		
Homosexual	233	78.7
Bisexual	63	21.3
<b>Race</b>		
Yellow	2	0.6
White	81	27.4
Brown	184	62.2
Black	29	9.8
<b>Education</b>		
Complete Elementary Education	24	8.1
Incomplete Elementary Education	22	7.4
Complete Secondary School	98	33.2
Incomplete Secondary School	69	23.3
Complete Higher Education	27	9.1
Incomplete Higher Education	42	14.2
Post-graduation	14	4.7
<b>Marital status</b>		
Single	186	62.9
Dating	69	23.3
Stable	26	8.8

Married	11	3.7
Divorced	1	0.3
Widowed	2	0.7
Did not answer	1	0.3
<b>Formal work</b>		
No	160	54.0
Yes	129	43.6
Did not answer	7	2.4
	<b>Median</b>	<b>Percentile (p.25-p.75)</b>
Income	678.00	500 - 1.100
Age	22	19-27

p. 25 (percentile 25); p.75 (percentile 75).

### Violence suffered on sexual orientation

Among the types of violence suffered (Table 02), there was greater a prevalence of psychological/verbal violence in homosexual and bisexual individuals, totaling 235 victims of such violence (79.3%), com-

pared to other types of violence, such as physical (n=93, 31.4%) and sexual (n=57, 19.2%).

### Drug use on sexual orientation

When evaluating the relation between type of violence suffered and sexual orientation and substance use (Table 03), it is observed in homosexual and bisexual individuals increased demand for use of depressants of the central nervous system on victimization by psychological/verbal, physical and sexual violence.

### Risk behaviors on violence, drug use and sexual orientation

As for the consequences of drug use by the study population (Table 04), it appears that CNS stimulants and depressants have a association ( $p \leq 0.001$ ) bet-

**Table 2.** Violence suffered as for type of sexual orientation. Juazeiro and Crato, Ceará, Brazil. 2013.

Sexual orientation	Psychological and verbal		Physical		Sexual	
	Yes (235;79.3%)	No (61;20.7%)	Yes (93; 31.4%)	No (203;68.6%)	Yes (57;19.2%)	No (239;80.8%)
Homosexual	187 (80.26)	46 (19.74)	74 (31.76)	159 (68.24)	46 (19.74)	187 (80.26)
Bisexual	48 (76.19)	15 (23.81)	19 (30.16)	44 (69.84)	11 (17.46)	52 (82.54)

**Table 3.** Drug consumption as for type of violence suffered according to sexual orientation. Juazeiro and Crato, Ceará, Brazil. 2013.

Type of violence	Homosexual/Type of drug							
	Stimulant (n.%)		Disturbing (n.%)		Depressant (n.%)		Others (n.%)	
	Yes	No	Yes	No	Yes	No	Yes	No
Psychological and verbal	62 (33.16)	125 (66.84)	17 (9.09)	170 (90.91)	120 (64.17)	67 (35.83)	33 (17.65)	154 (82.35)
Physical	27 (36.49)	47 (63.51)	11 (14.86)	63 (85.14)	49 (66.22)	25 (33.78)	16 (21.62)	58 (78.38)
Sexual	14 (30.43)	32 (69.57)	7 (15.22)	39 (84.78)	26 (56.52)	20 (43.48)	6 (13.04)	40 (86.96)
Type of violence	Bisexual/Type of drug							
	Stimulant (n.%)		Disturbing (n.%)		Depressant (n.%)		Others (n.%)	
	Yes	No	Yes	No	Yes	No	Yes	No
Psychological and verbal	13 (27.08)	35 (72.92)	11 (22.92)	37 (77.08)	33 (68.75)	15 (31.25)	6 (12.5)	42 (87.5)
Physical	8 (42.11)	11 (57.89)	6 (7.14)	13 (92.86)	13 (68.42)	6 (31.58)	2 (10.53)	17 (89.47)
Sexual	3 (27.27)	8 (72.73)	0 (0)	11 (100.00)	7 (63.64)	4 (36.36)	11 (100)	0 (0)

**Table 4.** Risk behaviors associated with the type of drug consumed according to sexual orientation. Juazeiro do Norte and Crato, Ceará, Brazil. 2013.

Homosexual									
Type of violence	Consequences of drug use								
	Dependency			Risks to health of others			Risks to one's own health		
	Yes n (%)	No n (%)	p-value*	Yes n (%)	No n (%)	p-value*	Yes n (%)	No n (%)	p-value*
Stimulant	49 (64.47)	27 (35.53)	<0.001	49 (64.47)	27 (35.53)	<0.001	61 (80.26)	15 (19.74)	<0.001
Depressant	85 (57.43)	63 (42.57)	<0.001	80 (54.05)	68 (45.95)	<0.001	112 (75.68)	36 (24.32)	<0.001
Disturbing	10 (52.63)	9 (47.37)	0.417	13 (68.42)	6 (31.58)	0.007	16 (84.21)	3 (15.79)	0.009
Others	25 (64.1)	14 (35.9)	0.005	23 (58.97)	16 (41.03)	0.006	29 (74.36)	10 (25.64)	0.011
Bisexual									
Type of drug	Consequences of drug use								
	Dependency			Risks to health of others			Risks to one's own health		
	Yes n (%)	No n (%)	p-value*	Yes n (%)	No n (%)	p-value*	Yes n (%)	No n (%)	p-value*
Stimulant	13 (61.9)	8 (38.1)	0.212	9 (42.86)	12 (57.14)	0.856	16 (76.19)	5 (23.81)	0.257
Depressant	28 (60.87)	18 (39.13)	0.009	24 (52.17)	22 (47.83)	0.004	38 (82.61)	8 (17.39)	<0.001
Disturbing	11 (73.33)	4 (26.67)	0.045	7 (46.67)	8 (53.33)	0.627	13 (86.67)	2 (13.33)	0.060
Others	3 (50)	3 (50)	0.967	2 (33.33)	4 (66.67)	0.678	3 (50)	3 (50)	0.363

\* Probable values of the chi-square test, with a significance level of  $p \leq 0.05$ .

ween homosexual individuals to dependence and risk behaviors to their own health and the health of others. Among bisexual individuals, depressant drugs had association as the three types of injuries of harms, respectively, for dependency ( $p = 0.009$ ), risks to others' health ( $p = 0.004$ ) and risk to their own health ( $p = \leq 0.001$ ).

As for risk behavior to one's own health, suicide attempts were associated with the type of drug consumed only in the homosexual population (**Table 05**). In this group, a positive association was obtained between consuming CNS disturbing drugs and attempting suicide ( $p < 0.001$ ).

## Discussion

To our knowledge, this is the first study conducted in Brazil that sought to examine the association between sexual orientation, suffered violence, drug use and risk behaviors in a sample of homosexual and bisexual individuals.

**Table 5.** Suicide attempts as for type of drug consumed according to sexual orientation. Juazeiro and Crato, Ceará, Brazil. 2013.

Homosexual			
Type of drug	Suicide attempt		
	Yes n (%)	No n (%)	p-value*
Stimulant	16(25)	48(75)	0.047
Depressant	27(22.88)	91(77.12)	0.009
Disturbing	9(56.25)	7(43.75)	<0.001
Others	5(14.29)	30(85.71)	0.590
Bisexual			
Type of drug	Suicide attempt		
	Yes n (%)	No n (%)	p-value*
Stimulant	6(35.29)	11(78.85)	0.082
Depressant	9(23.08)	30(76.92)	0.556
Disturbing	4(36.36)	7(63.64)	0.164
Others	2(33.33)	4(66.67)	0.437

\* Probable values of the chi-square test, with a significance level of  $p \leq 0.05$ .

By analyzing the variables studied, it was observed that: i) psychological/verbal violence is the most prevalent in homosexual and bisexual individuals ii) CNS depressive drugs emerge as a top choice for consumption in homosexual and bisexual people due to the violence suffered, iii) depressant and stimulant drugs showed a stronger association for addiction, risks to others' health and their own health in homosexual individuals, iv) depressant drugs were associated with risk behavior in bisexual individuals v) disturbing, stimulant and depressant drugs were associated with suicide attempts in homosexual individuals.

Scientific evidence has revealed that sexual minorities have high risk for disorders related to psychoactive substance abuse [17, 18, 19], being more prone to early experimentation, risk behaviors associated with the use, higher rates of abuse/dependence, susceptibility to relapse and difficulties to refrain from the use [1].

Despite evidence in sexual minorities, it is important to emphasize drug use on sexual orientation beyond the homosexual and heterosexual traditional division. Recent research has begun to introduce and examine the bisexual sexual orientation in this context [2]. Several studies have found that women and bisexual men are also likely to report alcohol and other drugs abuse when compared to exclusive heterosexual and homosexual people [20, 21, 22, 23].

It is believed that the abuse of psychoactive substances by homosexual and bisexual individuals, although it is a unique and individualized process, appears to be linked to the group as a way to deal with several negative feelings, among them, the insecurity and anxiety about their own acceptance of sexual orientation [24], even to cope situations of violence [25], as a result of homophobia.

Violent experiences arise frequently and are part of the day-to-day of homosexual and bisexual population. Study with 526 homosexuals living in Los Angeles showed that 98% of the sample reported having experienced homophobic acts, expressed in

the form of emotional abuse, physical and sexual assaults [5], corroborating the data found in this research, in which all participants of the sample have experienced at least one homophobic act in life, especially emotional abuse.

In Brazil, survey based on data from Disque Direitos Humanos-Dial Human Rights (Disque 100-Dial 100) Human Rights Department of the Republic Presidency [26] revealed that of the 6,809 human rights violations recorded against sexual minorities, involving 1,713 victims, psychological violence was the most reported, representing 42.5% of the total, followed by discrimination, with 22.3% and physical violence, with 15.9% of all reported violations.

Since it is more prevalent, psychological suffering of homosexual and bisexual people is significantly associated with increased drug use, for it is configured as coping strategies to negative thoughts that affect the mental health of sexual minorities as a consequence of victimization [27, 28].

In this sense, it is inferred that the prevalence for consumption of CNS depressive drugs in bisexual and homosexual participants of this study is related to the mechanism of action of these substances. These drugs, by reducing brain activity and depressing its operation [15], act as escape valves to cope with situations of violence, allowing the victim to become 'off', 'careless' and 'decentralized' [29], preventing them to strike back violent acts and, therefore, the persistence of negative thoughts associated with the phenomenon.

Study with 594 individuals living in Los Angeles and New York, from 2009 to 2011, in which 201 (34%) declared being gay, revealed that in the entry model for using CNS depressants, such as tranquilizers drugs, interaction between emotional abuse and homosexual orientation was significant ( $p < 0.05$ ) [30]. These data corroborate those found in this study, in which the use of CNS depressant drugs remained the preferred drugs for use in cases of violence, especially emotional abuse, regardless of sexual orientation.

Although used in face of suffered violence, constant consumption of psychoactive substances can cause adverse effects, increasing the susceptibility of homosexual and bisexual individuals to occurrence of disorders, among these, dependency and risk behaviors. Evidence suggests that individuals who identify themselves as lesbian, gay or bisexual generally have higher chances for psychoactive substances than heterosexual people [19].

In this sample, homosexual subjects had greater association between consuming CNS stimulants and depressants and evolving with signs of dependence and risk behaviors of their own health and that of others. In bisexual individuals, the strength of association remained for depressant drugs.

Scientific evidence have indicated that the main risk behaviors consequent to the use of drugs in sexual minorities are unsafe sexual practices [31], memory problems associated with post-consumption [32] and wishes to use, resulting in signs of addiction [33].

Dependence to drug use appears to be associated with the mechanism of action of psychoactive substances, especially, those that arouse feelings of joy, euphoria and well-being (CNS stimulant drugs) and tranquility and shutdown of reality (CNS depressant drugs). The sense of pleasure and tranquility obtained with the use of these psychoactive substances increases the potential for dependence, increasing the chances of developing psychiatric comorbidities such as depressive, anxiety and personality disorders [34] and that result in greater health risks of sexual minorities, like the suicidal behaviors [18].

In this sense, it is observed that as a result of suffered violence and drug use, sexual minorities have susceptibility to mental health disorders and increased chances for suicide ideation and attempts. The relation between psychiatric comorbidities and suicide attempts is already established in the literature [35]. Suicidal behavior in homosexual and bisexual subjects is a result of internalizing and externalizing mental health disorders [35, 36, 37], consequent to the social stigma, violence and discrimination [18].

Thus, violence based on sexual orientation implies profound impact on the mental health of LGBT members. Study with minority sexual orientation young people who have experienced high levels of violence were likely to report depression and to attempt suicide than those who experienced lower levels [38].

In addition to violence, the use of psychoactive substances is strong stressor for the mental health of LGBT members, resulting in suicidal behaviors [39]. In our study, homosexual individuals who used the three types of drugs (CNS disturbing) showed association to suicide attempts for the disturbing drugs, since they, in their mechanism of action, act disrupting the CNS functioning, by causing delusions and hallucinations [15,16], increasing the chances for suicide ideation and attempts. In fact, CNS disturbing drugs, such as ecstasy, present greater association for suicide attempts than other types of drugs.

Although important, study findings have some limitations. These data do not allow deepening in face of the multi-causal conditions that can interact for the occurrence of violence against sexual minorities, for drug use and adoption of risk behaviors. With these limitations in mind, it is difficult to generalize the results for all homosexual and bisexual people. Thus, further analysis of these conditions should be investigated.

Despite the limitations, this study provides directions, as it reinforces the alert to the involvement of homosexual and bisexual subjects in violence and drug use. It is evident that this population presents more chances to damage and health problems, which reveals the need to (re) formulate public policies that address protection and citizenship to this group, allowing them to fully exercise their rights as citizens.

### Contribuintes

Grayce Alencar Albuquerque is the principal investigator on the study and contributed to a substantial

portion of the writing and interpretation of results for this paper.

Cintia de Lima Garcia conducted a significant portion of the background research for this paper and also contributed to writing.

Jameson Moreira Belém conducted a significant portion of the background research for this paper and also contributed to writing.

Francisco Winter dos Santos Figueiredo conducted a significant portion of the background research for this paper and also contributed to writing.

Laércio da Silva conducted a significant portion of the background research for this paper and also contributed to writing.

Teresa Maria Siqueira Nascimento Arrais participated in interpretation of the results and writing the final manuscript.

Glauber da Silva Quirino participated in interpretation of the results and writing the final manuscript.

Luiz Carlos de Abreu participated in interpretation manuscript of the results and writing the final manuscript.

Érika da Silva Maciel participated in interpretation of the results and writing the final manuscript.

Luiz Vinicius de Alcantara Sousa participated in interpretation of the results and writing the final manuscript.

Vitor Engrácia Valenti participated in interpretation of the results and writing the final manuscript.

Fernando Adami contributed to this paper through conceptualization, data analysis and writing.

All authors have reviewed and approved the final manuscript.

### Conflict of interests

The authors declare that there are no conflicts of interest.

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