Original Article

Prevalence, Characteristics, and Factors Associated With Sexual Violence in Adulthood Among Brazilian MSM

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Abstract

Most studies of sexual violence are with women, and although men who have sex with men (MSM) is the group of the men that has been most investigated for sexual violence, there are still several questions to be answered about sexual violence and sexual revictimization among MSM. This study aimed to estimate the prevalence of sexual violence in different stages of life and identify factors associated with sexual violence in adulthood among Brazilian MSM. We conducted an analysis with data from the study conducted in 2016 with 4,176 MSM from 12 Brazilian cities recruited through respondent-driven sampling (RDS), who answered a survey to a set of questions, among which some specific about sexual violence. Most participants were under 25 years old (56.5%), with more than 12 years of schooling (71.2%), mixed race (40.8%), single (86.2%), and belonging to some religion (50.9%). The lifetime prevalence of sexual violence was 20.3%. In our analyses, having experienced sexual violence in childhood and adolescence increased the odds of experiencing sexual violence in adulthood (prevalence ratio ratios [PRR] 4.93 (95% CI [1.99, 12.21]), as did experiencing physical violence (PRR 1.99; 95% CI [1.07, 3.71]) and receiving money for sex (PRR 2.26; 95% CI [1.17, 4.36]). In addition to violence in childhood and adolescence being risk factors for sexual violence in adulthood, we also observed that half of the sample experienced sexual violence repeatedly, characterizing sexual revictimization. It is important that health services are prepared to receive boys and men victims in order to reduce the chances of revictimization and other outcomes.

Keywords

domestic violence, behavioral issues, male on male violence, behavioral issues, male sexual assault, behavioral issues, risk factors, behavioral issues, special populations

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Introduction

Most participants in studies on sexual violence are children, adolescents, and women (Barth et al., 2013; Hohendorff et al., 2012; Pereda et al., 2009). The literature on sexual violence against males is still reasonably scarce but presents sufficient information to acknowledge that this is a significant problem (Barth et al., 2013; Pereda et al., 2009). According to a meta-analysis that included studies from Asia, North America, Central America, South America, and Europe, the reported prevalence of childhood sexual violence against boys ranged from 3% to 17% (Barth et al., 2013). In a literature review on sexual violence in Brazil, the prevalence of self-reported sexual violence among boys and men ranged from 2% to 35% (Winzer, 2016).

In Brazil, only two surveys with representative samples of the general population have been conducted to estimate the prevalence of sexual violence in general population, the *Pesquisa Nacional de Saúde Escolar* (PenSE) and the *Pesquisa Nacional de Saúde* (PNS). The first interviewed elementary school students and asked about experience of having been forced to have sexual intercourse, the prevalence among boys was 3.7% (Fontes et al., 2017). The PNS, on the other hand, showed that the number of victims of sexual violence, 18 years of age or older, in the 12 months prior to the interview, was 1.2 million of the population (0.8%), of which 332,000 were men (0.4%). It also estimated that 9.4 million people aged 18 years or older have been victims of sexual violence sometime in their lives, which corresponds to 5.9% of the population, and of these, 2.5% are men (Minayo et al., 2022).

Among the studies on sexual violence against men, men who have sex with men (MSM) are the most prominent group. Many studies that have investigated this population, have focused the association of sexual violence with human immunodeficiency virus infection (HIV), acquired immune deficiency syndrome (AIDS), and other sexually transmitted diseases (STDs) (Lloyd & Operario, 2012; Mimiaga et al., 2009; Phillips et al., 2014; Tomori et al., 2016). They indicate that the likelihood of a homosexual or bisexual man suffering sexual violence is higher when compared with heterosexual men (Balsam et al., 2005; Sweet & Welles, 2012).

In the United States, Sweet and colleagues used the database of a national survey on alcohol and related factors wherein the male population was questioned about the sexual victimization experience on life. In this study, the prevalence was 11.3% among homosexual men and 15.2% among bisexual men (Sweet & Welles, 2012). In a study investigating sexual violence among MSM in Washington, DC, as a risk factor for HIV diagnosis, the prevalence was 17.5% (Phillips et al., 2014). A meta-analysis investigating risks for HIV in MSM victims of sexual violence in 12 American studies concluded that 27.3% (n = 4,263) of the participants had a history of sexual violence in childhood in the studies analyzed (n = 15,622) (Lloyd & Operario, 2012).

In the same direction as the international studies, a group of Brazilian researchers investigated the chances of ALGBT people to suffer physical, psychological, and sexual violence, from a representative sample of the Brazilian population, and identified that homosexual and bisexual men are more likely to suffer sexual violence than heterosexual men (OR 5.46; 95%CI [2.53, 11.77] and OR 6.67; 95% CI [2.72, 16.37], respectively) (Spizzirri et al., 2022).

Some authors indicate that underreporting sexual violence against men is more significant than against women, and therefore, one cannot state with certainty that men are fewer sexual victims than women (Hohendorff et al., 2012, 2014). In addition, studies that include men as participants have assessed sexual violence suffered almost exclusively in childhood (Barth et al., 2013).

In addition to providing prevalence data, Classen and colleagues (Classen et al., 2005) suggest that more research be conducted to investigate sexual revictimization among men. There is a robust literature regarding sexual revictimization, but mostly focused on women (Classen et al., 2005). A meta-analysis that included 80 studies estimated a mean prevalence of revictimization of 47.8% (Walker et al., 2019); however, there was not a significant difference based on the gender of the participants and the authors suggest that this was due to the studies being primarily with women.

Accordingly, issues such as the prevalence of sexual violence in adulthood between MSM and factors associated with sexual revictimization are relevant research subjects. Thus, this article aimed at assessing the prevalence of sexual violence against Brazilian MSM at different stages in life and factors are associated with sexual violence in adulthood among Brazilian MSM.

Materials and Methods

Type and Place of Study

Data from a cross-sectional study conducted in 12 municipalities, including participants from the second nationwide study of behaviors, attitudes, practices, and prevalence of HIV, Syphilis, and Hepatitis B and C among MSM, the study "Me convida que eu vou" ("Invite me I'll go") was assessed. The capitals chosen were representative of all the macro-regions of the country (North, Northeast, Midwest, Southeast, and South). A detailed description of the national study method by Kendall et al. (2019) is published and can be accessed.

The participants were recruited through the Respondent-driven Sampling (RDS) technique methodology (Heckathorn, 1997, 2007). Study participants

received a primary incentive, stipulated at BRL 25.00 >> US$5.80, and a secondary incentive, in the same amount, for each person he invited and completed participation in the study. The duration of data collection ranged from 5.9 to 17.6 weeks having started in June 2016 and ended in December of the same year.

Study Population

The sample size was previously established at 350 participants from each city by the Funders and the final was composed of 4176 MSM from 12 Brazilian capitals. They were included based on the following criteria: being male, 18 years or older, having had at least one sexual experience with another man in the last 12 months from the date of the interview, study, live, or working in the research municipalities, having received a valid study coupon, acceptance of participation conditions, be willing to invite peers to participate, and accept and sign the Informed Consent Form (ICF). The exclusion criterion was being under the influence of drugs, including alcohol, during the interview period and not presenting a valid coupon.

Measures

Sociodemographic Information

The following data were collected: age (categorized as < 25 and 25+ years), schooling years (<12 and 12 years and more), race/ skin color (White, Black, mixed race, and others), socioeconomic stratum classification A/B and C/D/E, obtained through the *Critério Brasil* that adopts a measure for property and not by family income, sexual orientation (Heterosexual, Gay-MSM), religious affiliation (Yes, No), and marital status (Single/Separated/ Widowed, Married, or living together).

Discrimination and Violence

The variable sexual violence was obtained through the questions: (a) "Has anyone ever forced you to have sex?" [with dichotomous responses (Yes/No)], and (b) "When did this sexual violence occur?" Participants could select: *Childhood, Adolescence*, and *Adulthood*. The question regarding when the sexual violence occurred allowed multiple entries. Any positive response, regardless of period of life in which violence occurred, counted for the prevalence estimation.

Questions about the character of the aggressor, the place where sexual violence occurred, frequency of sexual violence, if the participant told someone about the event, if he was under the influence of alcohol or other drugs at the time of sexual violence, if the aggressor was under the influence of alcohol or other drugs at the time of sexual violence, if he sought help from a health professional after sexual violence, and if he was instructed to take post-exposure prophylaxis (PEP) to prevent HIV were also considered. The questions about characterization of sexual violation allowed more than one answer as well; its total does not correspond to the 100% of individuals.

Information about having suffered discrimination as a result of sexual orientation was obtained through the question: "Have you ever felt discriminated against (mistreated, treated differently, and negatively) because of your sexual orientation?" The responses were categorized dichotomously (Yes/No), and the variable physical violence was questioned with: "Have you ever suffered through any kind of physical assault, that is, has anyone ever hit or assaulted you, or have you ever been beaten by someone because of your sexual orientation?" This was also categorized as dichotomous responses (Yes/No).

Consumption of Alcohol and Other Drugs

Information on alcohol consumption was obtained from the Alcohol Use Disorder Identification Test (AUDIT). The AUDIT is an instrument composed of ten objective questions that allow answers with pre-established weights, ranging from 0 to 4. The average of each question indicates the classification of each individual regarding alcohol consumption, with 0 to 7 classified as low-risk consumption for dependence or abstinent, 8 to 15 as risk consumption, 16 to 19 as harmful use or high-risk consumption, and 20 to 40 indicates possible alcohol dependence (I. S. Santos et al., 2013). In our analysis, we used this variable dichotomously, being: low risk or abstainers at low risk, and risky/harmful use or high risk/possible alcohol dependence at high risk.

Data on other drugs' use were obtained through questions about the frequency of use in the last 6 months of the research concerning marijuana, crack, amphetamines, *lança-perfume*, solvents, glue, ecstasy, and cocaine. The answers were categorized as "Yes" for those who have used any of the drugs at least once and "No" for those who have not.

Depressive Symptoms

The Patient Health Questionnaire-9 (PHQ-9) consists of nine questions that assess the presence of each of the symptoms for the classification of an episode of major depression. The frequency of each symptom in the last two weeks is evaluated on a Likert-type scale from 0 to 3, corresponding to the answers "not at all," "several days," "more than half the days," and "nearly every day," respectively. The sum of the score ranges from 0 to 27 points.

The cut-off point used was the sum of nine points (I. S. Santos et al., 2013). The total score of 10 to 14 corresponded to mild depression, 15 to 19 moderate depression, and 20 to 27 severe depression.

Data Analysis

The 12 cities were combined and each was considered a stratum. Data were weighted using Gile's estimator (Gile & Handcock, 2010). Descriptive analyses were performed, the prevalence of sexual violence suffered at least during one life stage, and the prevalence of sexual violence in childhood, adolescence, and adulthood were calculated. Sexual violence in adulthood was considered the outcome variable. The association between the selected variables and sexual violence in adulthood was analyzed by the chi-square test. The variables associated with the outcome with a value of $p \leq 0.20$ were included in the univariate and multivariate analyses and variables indicated by the literature, including race/ skin color, depressive symptoms, and alcohol use. The prevalence ratio ratios (PRR) and respective 95% confidence intervals were calculated using Poisson regression with robust variance. The data were analyzed by RDS Analyst and STATA software (version 15), using the complex data analysis procedure (SYV).

Ethical Aspects

From an ethical point of view, this study is in accordance with resolution 466/12 of the Ministry of Health. The study protocol was submitted, reviewed, and approved by the Research Ethics Committee of the Federal University of Ceará_____ (CAAE no. CAAE43 133915.9.0000.5054). An ICF was obtained from all participants, who were informed they could withdraw their consent at any stage or omit any question they perceived to be sensitive, personal, or disturbing.

Results

Most participants were under 25 years of age (56.5%), with more than 12 years of schooling (71.2%), self-declared as mixed race (40.8%), single (86.2%), and affiliated to some religion (50.9%). The prevalence of physical violence due to sexual orientation was 23.5%, and more than half of the participants suffered discrimination due to sexual orientation (66.9%). Regarding depressive symptoms, 13.4% had mild symptoms, 7.1% had moderate symptoms, and 4.1% had severe symptoms. Regarding sexual behavior, most did not receive money to have sex in the last 6 months (69.6%) and had less than 100 sexual partners during this period (93.7%). Regarding substance use, the majority presented low-risk consumption (51.8%), and approximately one quarter of the sample has used illicit drugs in the last 6 months (27.6%) (Table 1). In *Table 1* it is also possible to see the characteristics of the participants in relation to sexual violence in adulthood.

Prevalence of Sexual Violence

A total of 878 of the 4,176 participants (20.3%) reported being victims of forced sexual intercourse at some time in their lives. When asked when the sexual violence had occurred, 480 (9.3%) stated childhood, 347 (8.7%) adolescence, and 164 (4.3%) adulthood. Among the victims of sexual violence, 85 (1.3%) were victimized in childhood and adolescence and 45 (1.4%) in childhood, adolescence, and adulthood. Almost 1% of participants did not want to answer whether they had been victims of forced sex at any time in their lives (Table 2).

Characteristics of Sexual Violence Suffered Throughout Life

Among the individuals who suffered sexual violence, just over half reported that the violence suffered was perpetrated by people the victims knew, including family members (16.6%), acquaintances (12.3%), and partners (21.3%). Most of the sexual violence occurred in the victims' homes (52.0%). Violence was repeated, indicated by the responses "Few Times" (28.5%) with "Sometimes" (22.4%), indicating that more than half of the sexually victimized participants were revictimized; most told someone what had happened (63.1%). Regarding the use of substances during the act of sexual violence, most reported that they were not under the influence of alcohol or drugs (51.9%), nor was the aggressor (52.1%). Most of the respondents (82.1%) stated that they did not seek medical help after the acts of violence, and 72.9% of the total of victims were not instructed to take PEP (Table 3).

Bivariate Analysis of Factors Associated With Sexual Violence in Adulthood

The factors independently associated with sexual violence in adulthood with a value of $p \leq .20$ included Marital status ($p < .001$), having suffered sexual violence in childhood or adolescence ($p < .001$), having suffered physical violence ($p < .005$), having been discriminated against due to sexual orientation ($p = .0111$), having received money for sex in the last 6 months before the survey ($p = .0117$), and using illicit drugs in the last 6 months before the research ($p = .0256$). In the univariate model, they remained statistically associated with a 95% confidence interval, black race or skin color, sexual violence in childhood and adolescence, physical violence, discrimination by sexual orientation, having received the money in exchange for sex, and illicit drug use (Table 1).

Table 1. Characteristics of MSM From 12 Cities in Brazil According to Experience of Sexual Violence in Adulthood, 2016

	Sexual violence in adulthood		Total
Characteristics of participants	No, *n* (%)	Yes, *n* (%)	*n* (%)
Age			
<25	2,505 (56.7)	87 (52.2)	2,505 (56.5)
25+	1,626 (43.3)	76 (47.0)	1,626 (43.5)
Years of study			
12+	3,115 (71.0)	123 (76.9)	3,115 (71.2)
<12	1,017 (28.9)	41 (23.0)	1,017 (28.7)
Race/ skin color[a]			
White	1,285 (32.4)	66 (30.1)	1,285 (32.3)
Mixed race	2,828 (41.7)	47 (21.9)	2,828 (40.8)
Black	903 (20.8)	43 (47.2)	903 (22.0)
Other (indigenous and yellow)	157 (5.0)	7 (0.6)	157 (4.8)
Socioeconomic status			
A/B	1,889 (42.9)	82 (51.4)	1,889 (43.2)
C/D/E	2,238 (57.1)	82 (48.5)	2,238 (56.7)
Marital status[a]			
Single/Separate/Widowed	3,578 (85.7)	146 (95.8)	3,578 (86.2)
Married or living together	537 (14.2)	18 (4.1)	537 (13.7)
Religious affiliation			
No	1,920 (50.9)	84 (50.1)	1,920 (50.9)
Yes	2,176 (49.0)	79 (49.8)	2,176 (49.9)
History of physical violence[a]			
No	3,150 (77.3)	96 (56.2)	3150 (76.4)
Yes	928 (22.6)	67 (43.7)	928 (23.5)
Discrimination by sexual orientation[a]			
No	1,234 (33.7)	34 (17.7)	1,234 (33.0)
Yes	2,858 (66.2)	130 (82.2)	2,858 (66.9)
Depressive symptoms			
No symptoms	3,146 (75.5)	103 (68.9)	3146 (75.2)
Mild	542 (13.3)	36 (16.0)	542 (13.4)
Moderate	279 (6.9)	14 (11.1)	279 (7.1)
Severe	149 (4.1)	10 (3.9)	149 (4.1)
Receive money for sex (<6 m)[a]			
No	2,893 (70.4)	90 (52.1)	2,893 (69.6)
Yes	1,283 (29.5)	74 (47.8)	1,283 (30.3)
Alcohol consumption			
Low risk	2,045 (52.0)	72 (46.3)	2,045 (51.8)
High risk	1,919 (47.9)	83 (53.6)	1,919 (48.1)
Illicit drug use (<6 m)[a]			
No	3,036 (50.0)	72 (32.3)	3,036 (72.3)
Yes	1,004 (49.9)	83 (67.6)	1,004 (27.6)
Number of sexual partners			
<100	3,857 (93.8)	57 (91.1)	3,857 (93.7)
>100	298 (6.1)	102 (8.8)	298 (6.2)

Note. MSM: men who have sex with men.
[a]Variables associated with sexual violence in adulthood through chi-square test with $p \leq 0.20$.

Uni-and Multivariate Analysis

In the final model, the factors independently associated with sexual violence included self-identifying as having black skin color (PRR 1.93; 95% CI [1.04, 3.59]), having suffered sexual violence in childhood and adolescence (PRR 4.93; 95% CI [1.99, 12.21]), having suffered physical violence (PRR 1.99; 95% CI [1.07, 3.71]), and having

Table 2. Prevalence of Sexual Violence During the Life of MSM in 12 Brazilian Cities (2016)

Sexual violence	*N*	%
General		
No	3,207	79.7
Yes	878	20.3
Childhood[a]		
No	3,696	90.6
Yes	480	9.3
Adolescence[b]		
No	3,829	91.6
Yes	347	8.7
Childhood and adolescence[c]		
No	4,091	98.6
Yes	85	1.3
Adulthood[d]		
No	4,012	95.6
Yes	164	4.3
Childhood, Adolescence, and Adulthood[e]		
No	1,701	98.5
Yes	45	1.4

Note. MSM: men who have sex with men.
[a]Sexual violence suffered in childhood and may have occurred at other stages of life. [b] Sexual violence suffered in adolescence and may have occurred at other stages of life. [c] Sexual violence suffered in childhood and adolescence and may have occurred in adulthood. [d] Sexual violence suffered in adulthood and may have occurred at other stages of life. [e] Sexual violence suffered in the three periods studied.

Table 3. Characterization of Sexual Violence Against MSM in 12 Brazilian Capitals, 2016 (n = 878)

Characteristics	*n*	%
Who was the aggressor?		
Family member	296	16.6
Acquaintance	162	12.3
Partner	74	21.3
Unknown	159	15.3
Others	154	30.2
I didn't want to answer	32	4.0
Where did the sexual violence occur?		
At home	499	52.0
In the street	185	17.2
In Health and education institutions	19	2.0
Other	141	28.0
How often did the sexual violence occur?		
Once	298	48.6
Few times	220	28.5
Sometimes	335	22.4
Did you tell someone about what happened?		
Yes	607	63.1
No	362	36.9
Whom did you tell?		
Family	185	8.4
Partner	22	0.4
Friend	130	26.9
Health professional	6	0.9
Police officer	13	1.1
Teaching institute professional	4	14.2
I do not want to answer	29	0.6
Were you under the influence of drugs?		
No	716	51.9
Yes	128	47.8
Was your aggressor under the influence of drugs?		
No	495	52.1
Yes	244	47.7
Did you seek help from a health professional?		
No	740	82.1
Yes	113	17.5
Were you told to take Pep?		
No	78	72.9
Yes	31	27.0

Note. MSM: men who have sex with men.

received the money in exchange for sex (PRR 2.26; 95% CI [1.17, 4.36]) (Table 4).

Discussion

The prevalence of sexual violence among the study participants was significant, and the results draw attention to the increased risk of suffering sexual violence in adulthood among those who suffered sexual violence in childhood and adolescence. Unlike most of the studies reviewed, which estimate the prevalence of sexual violence in childhood, this study estimated the prevalence of violence at least once in life and at different stages of life, expanding the analyses about the phenomenon in various life stages. In this sense, a survey conducted in Washington, DC, as a local part of the national study on HIV among MSM, with a sample of 500 subjects, observed that 17.5% reported having suffered sexual violence in childhood (Phillips et al., 2014). In a longitudinal study conducted in six United States cities with 4295 MSM, the prevalence of sexual violence in childhood was 39.7% (Mimiaga et al., 2009). In a cross-sectional study in which 601 MSM were recruited through RDS in Côte d'Ivoire and answered the question "Were you sexually abused?," the prevalence was 44.9% (Aho et al., 2014). The study that most closely resembles the present one was conducted with 3859 MSM recruited through RDS in 10 Brazilian capital cities, wherein the prevalence of sexual violence obtained from a question that asked whether participants had been forced to have sex was 15.9 % (Sabidó et al., 2015), indicating that our results present a higher prevalence by 6% or 1.3-fold higher (21.49/15.9).

Our results regarding the risk of sexual victimization in adulthood among those victims of sexual violence in childhood or adolescence are consistent with other studies. In a national sample of American men and women,

Table 4. Prevalence of Sexual Violence in Adulthood, Crude, and Adjusted Analysis of Factors Associated With the Occurrence of Sexual Violence in Adulthood Among MSM in 12 Brazilian Cities (2016)

Characteristics	Prevalence of sexual violence in adulthood	*p*-value	Crude PR [95%, CI]	Adjusted PRR [95% CI]
Age				
<25	4.0		—	—
25+	4.8	.569	—	—
Years of study				
12+	4.8		—	—
<12	3.5	.381	—	—
Race				
White	4.1		—	—
Brown	2.4		0.57 [0.27, 1.18]	0.49 [0.23, 1.02]
Black	9.5		2.30 [1.20, 4.38]	**1.93 [1.04, 3.59]**
Other (indigenous and yellow)	0.6	**<.001**	0.15 [0.05, 0.44]	**0.10 [0.02, 0.35]**
Socioeconomic status				
A/B	5.3		—	—
C/D/E	3.8	.271	—	—
Civil status				
Single	4.9		—	—
Accompanied	1.3	**<.001**	0.27 [0.13, 0.52]	**0.25 [0.11, 0.54]**
Religion				
No	4.4		—	—
Yes	4.5	.914	—	—
Sexual violence				
No	3.5			
Childhood	5.8		1.66 [0.61, 4.52]	1.39 [.51, 3.82]
Adolescence	8.1		2.31 [0.93, 5.77]	1.59 [.66, 3.85]
Childhood and adolescence	29.2	<.001	8.32 [3.82, 18.10]	**4.93 [1.99, 12.21]**
History of physical violence				
No	3.2		—	—
Yes	8.2	**.001**	2.52 [1.39, 4.55]	**1.99 [1.07, 3.71]**
Discrimination by sexual orientation				
No	2.4		—	—
Yes	5.5	**.011**	2.29 [1.18, 4.44]	1.69 [.83, 3.46]
Receive money for sex (<6 m)				
No	3.2		—	—
Yes	6.9	**.011**	2.10 [1.16, 3.78]	**2.26 [1.17, 4.36]**
Depressive symptoms				
No symptoms	3.8			
Mild	5.0		1.30 [0.60, 2.79]	0.84 [0.41, 1.69]
Moderate	6.5		1.70 [0.69, 4.15]	1.12 [0.55, 2.28]
Severe	4.0	.579	1.04 [0.35, 3.11]	0.60 [.18, 2.01]
Alcohol consumption				
Low risk	3.8		—	—
High risk	4.7	.472	1.24 [.63, 2.26]	0.95 [0.48, 1.85]
Illicit drug use (<6 m)				
No	2.7		—	—
Yes	5.5	**.025**	2.03 [1.07, 3.85]	1.50 [0.74, 3.05]
Number of sexual partners				
<100	4.0		—	—
>100	5.9	.581	—	—

Note. MSM: men who have sex with men. PRR = prevalence ratio ratios. Statistically significant values are in bold.

this risk was adjusted odds ratio (AOR) 5.5 (95% CI [2.93, 10.29]) (Desai et al., 2002). In another study with MSM living with HIV, the chances of sexual revictimization in adulthood among participants who suffered sexual violence in childhood than those who did not report sexual violence in childhood was Incident Rate Ratio – IRR 3.31 (95% CI [1.07, 10.27]) (Pantalone et al., 2015).

The association between sexual violence in childhood and adolescence and revictimization in adulthood has been studied among women. We can conclude through a literature review that (a) sexual revictimization is a fundamental problem, (b) most sexually victimized subjects in childhood are revictimized, (c) there is evidence that victimization in adolescence increases the chances of victimization in adulthood, and (d) the chances of sexual revictimization in adulthood are associated with poly victimization; other forms of victimization (e.g., physical and psychological violence) (Classen et al., 2005).

Sexual violence in adulthood committed by an intimate partner was identified as a critical component of our sample; just over half of violent acts were perpetrated by family members and acquaintances. A study conducted in 10 Brazilian cities showed a similarity that most sex offenders were known to the victims (Sabidó et al., 2015); the difference is that our research had fewer victims by intimate partners compared with the 2010 study. This may explain the result indicating that people with partners (stable relationships or not) are less likely to suffer sexual violence in adulthood.

Proximity to the aggressor also seems to be a characteristic of sexual violence at other stages in life. Studies based on Brazilian notification systems have identified the same pattern; the greatest perpetrators of violence are known to victims, and abuses usually occur at home (Platt et al., 2018; M. de J. Santos et al., 2018). Winzer (2016) reviewed the literature on sexual violence in Brazil, which included 40 studies, and concluded that available studies that report the perpetrators' identity of sexual violence are still limited, and those identified showed most perpetrators are intimate partners (Winzer, 2016).

In addition to the association analysis that indicated increased odds of suffering sexual violence in adulthood for those victims in childhood and adolescence, our study presents another data that confirms that sexual violence against MSM has a repetitive character. When analyzing the frequency of sexual violence suffered, we found that more than half of the participants reported having been victims more than once. The characteristics of the aggressors and the place of sexual victimization may be significantly associated with the repetition of violence. In a study with secondary data from a program for children who were victims of sexual violence between 2009 and 2013, the researchers concluded that violence lasted longer among boys (Vertamatti et al., 2019). Another study that analyzed 489 reports of sexual violence against children and adolescents in a pediatric hospital identified a higher prevalence of sexual violence among girls but a higher recurrence among boys (Platt et al., 2018).

In the analysis of data from the Ministry of Health, 2011 on sexual violence, the authors suggest that the probability of sexual violence being repeated is associated with the relationship of domination of the aggressor concerning the victim; for them, the greater the chance of the victim not reporting the abuse, the greater the chances of violence happening again. Moreover, according to the authors, characteristics such as proximity to the aggressor and lower level of education are also identified as factors that increase the chances of repeated violence (Cerqueira et al., 2014).

In this study, receiving money in exchange for sex in the last 6 months was also found as a risk factor for sexual violence in adulthood. Although prostitution is not prohibited in Brazil, people who prostitute themselves often are in precarious security conditions in practice. The association between sex work and increased risk for sexual violence was also identified in a study conducted with female sex workers from some regions of Brazil, wherein participants reported violence perpetrated by clients and police officers and social stigma (Guimarães & Merchán-Hamann, 2005).

The stigma suffered by sex workers can facilitate aggressors' perception that victims will not report violence to the police and that if they do, they will probably not be taken seriously, making them easy targets for sex offenders (Connelly et al., 2018; Krüsi et al., 2014).

Regarding the increased risk of sexual violence in adulthood among those who suffered physical violence in our sample, notably, violence, whatever the form, generally does not occur in isolation; that is, it is typical in studies on sexual violence that victims also suffered physical or psychological violence. The authors call this phenomenon poly victimization; the victim is subjected to more than one type of violence throughout life (Conceição et al., 2020; Finkelhor et al., 2005). Poly victimization is different from revictimization, the latter being associated with the experience of suffering the same type of violence. Physical violence has been described as a problem among boys in Brazil (de Assis et al., 2012; Rates et al., 2015). In the study conducted in 10 Brazilian capitals with MSM that studied sexual violence and associated factors, 30% of participants who were victims of sexual violence had also been victims of physical violence (Sabidó et al., 2015). Thus, it seems standard for this violence to also coexist among MSM.

The likelihood of sexual violence in adulthood is higher among black individuals than brown individuals and others (indigenous and yellow). Although race or skin color was not statistically associated with sexual

violence in adulthood in the association test, we chose to include this variable in the analysis following the literature. In the 2010 MSM study, Black or Brown men participants that were victims of sexual violence were higher than White individuals (Sabidó et al., 2015). Therefore, our results align with reports of black women, for whom the chances of revictimization in adulthood are higher (West et al., 2000).

This study has some limitations. First, it was not designed with the sole objective of exploring the concerns to identify sexual violence, for example, without assessing the forms of sexual violence with or without contact. Studies with a data collection instrument that is more sensitive to the forms of sexual violence are necessary. In contrast, even though it was not a study with the theme of sexual violence as a central objective, the findings are significant.

The study results are limited to MSM and represent solely for those social relationship networks of which the participants are connected. It is not possible to extrapolate the knowledge produced here for MSM in Brazil as a whole. However, this is the most extensive Brazilian MSM study investigating the prevalence of sexual violence and the risk of sexual revictimization in adulthood for those who were victims in childhood and adolescence.

We believe that the results found may foster future studies with representative samples of Brazilian men with the primary objective of estimating the magnitude of sexual violence against men in different stages of life, understanding how the causation relationships between sexual victimization and revictimization operate and producing reflections on race to answer questions that were beyond the scope of this study. These studies should address sexual orientation and/or sexual practices in order to evaluate the risk of sexual violence among homosexual and bisexual men.

Health providers, in its turn, should be aware of evidence showing negative medium- and long-term effects of sexual violence so that they can provide adequate care and referrals when needed. Victims should be encouraged to seek professional help. Breaking the silence can help them deal with, as well as resignify, their trauma.

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Ethical Statements

The study protocol was submitted, reviewed, and approved by the Research Ethics Committee of the Federal University of Ceará (CAAE no. CAAE43133915.9.0000.5054 and Opinion No. 1.024.053).

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