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Physical violence against women in Brazil: Findings from the 3rd Brazilian household survey on substance use

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ABSTRACT

Brazil has a historical gap regarding information on violence against women. Herein we aimed to evaluate the association of socioeconomic and demographic characteristics with physical violence against women in Brazil, as well as the possible escalation of violence to severe patterns of violence. We analysed data from the 3rd Brazilian Household Survey on Substance Use, in 2015. The main outcomes were reporting any physical violence and being stabbed/shot in the last 12-months. Logistic regressions were fitted to assess the association between socioeconomic and demographic variables with the outcomes. We estimated 3.8 million women reported any physical violence (5.52%): 3.79% reported threats to beat/ push/kick, 1.87% threats with knife/gun, 2.49% were beaten/pushed/kicked, 0.63% were spanked/ choked, and 0.21% were stabbed/shot. The higher the severity of violence, the higher the number of types of violence experienced. The likelihood of reporting any violence was higher among women 18–24 years, without a stable partner, who were at an informal job or unemployed, and who live in urban areas. The sociodemographic characteristics associated with reporting any violence reinforce the importance of addressing gender inequalities. Evidence of escalation violence reinforces the need to protect and care for women who report any type of violence.

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Gender-based violence; aggression; socioeconomic factors; Brazil

Introduction

Violence against women (VAW) is internationally recognised as a violation of human rights and fundamental freedoms, one of the most frightening consequences of unequal power relations between men and women. Preventive and response strategies to tackle VAW are considered public health priorities (WHO, 2019), and the 2030 Agenda for Sustainable Development has established a specific target (5.2) to monitor VAW (UN, 2015).

VAW increases the risk of death, injury, and mental health problems (including illicit substance use disorders – SUD – and suicide) (Campbell, 2002). VAW compromises engagement and completion of treatment for SUD and has been associated with homelessness – which increases women's social vulnerability and may retro feed violence (Carpena et al., 2020; Daoud et al., 2016; Ogden et al., 2022).

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VAW may occur following an escalation over time, from threats to aggression and lethality. Women who are victims of violence are at risk of being murdered by men, because they are women (feminicide), reflecting the importance of the relations of power underlying those murders (Molinatti & Acosta, 2015). Factors associated with feminicide may vary across regions and cultures, and, at the macro level, have been associated with gender (Barros et al., 2021; Barufaldi et al., 2017) and socioeconomic inequalities. At the individual-level, women, especially those who report physical violence, being hurt by an object that may harm her or a firearm and those reporting multiple/recurrent episodes of violence present the higher risk of feminicide (Barros et al., 2021; Barufaldi et al., 2017). According to the (WHO, 2021a), the risk factors associated with IPV that may eventually cause a femicide, are those as follows (among others): lower education, low access of women to paid jobs, low level of gender equality, past history of exposure to violence, and marital discord and dissatisfaction.

In 2021, Brazil registered the highest absolute number of feminicides and one of the highest femicide rates in Latin America (1.7 per 100,000 women) (ECLAC, 2022). Interpersonal violence was the second leading cause of death among women aged 10–24 years (Malta et al., 2021), and women exposed to violence had an estimated mortality risk 8.3 times higher than in the general woman population (Sandoval et al., 2020). Feminicide was more likely to occur among young, black, single, low-income women, with little or no formal education (Orellana et al., 2019; Silva et al., 2013). Also, in the 2000s there was a pronounced increase in feminicide in the Northeast of the country (Meira et al., 2021; Souza et al., 2017), indicating that, although a new legislation has been approved to protect women (Diário Oficial da União, 2006), it has been insufficient to prevent the increase in the occurrence of episodes of violence, which demands an urgent need for concrete actions (Gattegno et al., 2016).

The World Health Organisation estimates that 30% of women worldwide have experienced physical or sexual violence in their lifetime (WHO, 2021b). In Latin America these figures vary considerably. Bolivia (58.5%; CI95%:56.8–60.3%) and Ecuador (40.4%; CI95%:38.7–42.1%) seem to have the most dramatic cases of physical or sexual violence during the lifetime of their victims (Bott et al., 2019). Brazil has a historical gap in information on VAW, but, according to the latest National Health Survey (PNS), 19.4% (CI95%:18.7–20%) of Brazilian women, aged 18 years or older, suffered some type of violence in the last 12 months: 18.6% (CI95%:17.9–19.2%) reported psychological violence, 4.2% (CI95%:3.9–4.7%) physical violence, and 1.0% (CI95%:0.9–1.3%) sexual violence (IBGE, 2021b). In addition, a meta-analysis, estimated the pooled prevalence of physical violence at 11.5% in the last 12 months (Nakamura et al., 2023).

Ecological studies have shown that socioeconomic inequalities, measured either by GINI index or the Municipal Human Development Index (HDI-M), have been associated with violence among men and women (Wanzinack et al., 2022). Brazil is one of the most unequal countries in the world, and it is likely that this inauspicious environment foments VAW. For instance, at the municipal level, it has been already reported that domestic violence was more frequent in low-income neighbourhoods (Barbosa et al., 2019). At the individual-level, sociodemographic variables were also associated with VAW – although data may be harder to obtain, and samples are not always probabilistic. More than one study showed that being black and reporting low-income were characteristics that increased the chance of VAW (de Oliveira Ramos et al., 2022; Pereira & Gaspar, 2021) – reinforcing the importance of unbalanced gender power and shedding light on the importance of structural racism within the society to perpetuate violence. Considering this scenario, we aimed to evaluate the association of sociodemographic characteristics with physical violence against women in Brazil, profiting from data obtained in a representative population survey. Data from probability surveys are especially important to decrease the selection bias that is present when evaluating violence records (where there is under notification). Surveys with national coverage and large sample sizes are expensive and there is little data available in the last 10 years in Brazil. Thus, this study may contribute to monitoring VAW and evaluating the implementation of policies over the years. Furthermore, we aimed to evaluate the factors associated with the escalation of violence towards severe

patterns of violence, in the community, which may bring crucial information to prevent morbidity and mortality due to VAW.

Material and methods

Data

This is a secondary analysis of data obtained from the 3rd Brazilian Household Survey on Substance Use (BHSU-3), a national probability sample household survey conducted in 2015. Interviews were conducted face-to-face, by trained interviewers, and covered sociodemographic characteristics; self-reported medical comorbidities; tobacco, alcohol, non-prescribed medications, and illicit substances (use, abuse and dependence); substance use treatment; violence; substance availability and opinions regarding substance use policy. The full methodological report describing the sampling design, questionnaires, data collection, data entry, handling of non-response and estimation procedures is publicly available at https://www.arca.fiocruz.br/handle/icict/34614 (in Portuguese, English, and Spanish) (Bastos et al., 2017). Additional information and results may be found in papers published elsewhere. The BHSU-3 was approved by the *Escola Politécnica Joaquim Venâncio*/FIOCRUZ´s Ethics Review Board (CAAE # 35283814.4.0000.5241), and all participants signed an informed consent form.

Study population

The BHSU-3 included 16,273 individuals aged 12–65, representing an estimated population of 153 million Brazilians. Native individuals living in indigenous villages, inmates, and individuals with physical or mental disabilities that could preclude answering the interviews were not eligible. For the sake of the present analysis, we selected 9,812 women aged 18 years or older, representing 70 million Brazilian women.

Outcomes

Violence was investigated using 5 questions referring to the 12 months prior to the interview: 'Have you been threatened to hit, push or kick?'; 'Have you been threatened with a knife or gun?'; 'Have you been beaten, pushed or kicked?'; 'Have you been spanked or choked?'; and 'Have you been stabbed or shot?'. The possible answers were yes, no, I do not know, and I don't want to answer. Whenever an individual answered 'yes', it was considered a positive answer, and all other options were considered a negative answer. Afterwards we considered two outcomes: (1) Any Violence, meaning a positive answer to any of the five questions above; and (2) a positive answer to have been stabbed/shot, assuming that this was the most severe type of physical violence.

Independent variables

Demographic variables included Age (18–24 years, 25–54 years old and >54 years old), Colour/Race (white, black/mixed, other), Education attainment (incomplete elementary fundamental, complete elementary fundamental, complete high school), Household Income (up to 1 minimum wage – MW, 1–4 MW or > 4 MG. One MW was equivalent to 2015 U$ 290.00/month). Working Situation was categorised into regular job, informal job (locally known as '*bicos*' [a slang]), unemployed, or economically inactive. The marital status categories were married, single, divorced/widowed, in addition, we asked about having a steady partner (Yes, No), Number of children (none, one or more), and Living in Urban vs. Rural areas.

To evaluate the factors associated with have been stabbed/shot, we considered as independent variables all other types of violence separately (i.e. threats to beat/ push/kick, threats with knife/ gun, being beaten/pushed/kicked, and being spanked/ choked).

Statistical analysis

We estimated the prevalence of any violence and all five types of violence and explored their overlap.

Initially, bivariate analysis was performed using logistic regressions to assess the association of socioeconomic and demographic variables with the outcome 'Any Physical Violence'. To select adjustment ('control') variables in the multivariate regression models, a statistical parsimony concept was employed, utilising the Akaike criteria (AIC) and Anova Chi-square Test, contrasting the univariate against the null model. Subsequently, we followed the same procedure to evaluate factors associated with being stabbed/shot, selecting as subset, women who were classified as victims of 'Any Physical Violence'. Again, we conducted multivariate logistic regressions using 'control' variables selected by Akaike criteria (AIC) and Anova Chi-square Test procedure in the bivariate analysis.

Measures of association were presented as odds ratios (OR) and adjusted odds ratios (aOR) and their 95% confidence intervals. All statistical analyses were performed in the R v.4.0.5 software, using the 'survey' and 'srvyr' libraries and their dependencies, considering sample weights, design effect and weight calibration (Ellis & Lumley, 2019; Lumley, 2018).

Results

Overall, 68.66% (Standard Error – SE <1%) of the women between 25 and 54 years old, 52.64% (SE 1%) self-declared being black/mixed, 32.91% (SE 1%) had less than fundamental schooling, 16.96% (SE 1%) lived with a household income lower than 2015U$ 290.00/month and 12.01% were unemployed.

We estimated that almost four million women reported any physical violence in the 12-months prior to the interview (i.e. 5.52%): 3.79% reported threats to beat/ push/kick, 1.87% threats with knife/gun, 2.49% were beaten/pushed/kicked, 0.63% were spanked/ choked, and 0.21% were stabbed/shot.

In Table 1 we explored the overlapping of types of violence. It shows the number of types of violence suffered by women reporting 'any violence' and among those reporting each of the five specific types of violence. For instance, among women who reported 'any violence', 57.55% experienced only one type of violence, 27.39% experienced two types, 10.79% reported three types, 3.1% declared four types, and 1.17% informed all the five types of violence evaluated.

Table 1 also shows that the higher the severity of violence, the higher the number of types of violence experienced. 1.71% of women who suffered threats to beat/push/kick experienced all the five types of violence, while among those who were stabbed/shot this proportion was 30.33%.

Factors associated with any violence

Table 2 shows the characteristics of women (overall and stratified by suffering any violence), as well as the factors associated with reporting any type of violence. After multivariate analysis, it was

Table 1. Number of physical violence types in the 12-months previous to the interview. Brazilian women reporting any physical in the BHSU-3, 2015.

	Women reporting any violence					
	Any Violence	Threats to beat/ push/kick	Threats with knife/gun	Beaten/pushed/ kicked	Spancked/ choked	Stabbed/ shot
Est. Pop. N (x1000)	3,877	2,659	1,314	1,746	442	149
Number of violence types (%)						
1	57.55	42.53	52.05	20.47	12.51	1.10
2	27.39	36.04	17.43	48.33	9.00	33.65
3	10.79	15.20	18.89	21.73	45.01	15.10
4	3.10	4.51	8.18	6.87	23.23	19.82
5	1.17	1.71	3.46	2.60	10.25	30.33

observed that the likelihood of reporting any violence was higher among women 18–24 years, black/mixed ($p = 0.07$), without a stable partner, who were at an informal job or unemployed, and who live in urban areas.

Factors associated with have been stabbed/shot

Among the 3.8 million women who suffered any violence, roughly 150,000 women (i.e. 3.86%) reported to have been stabbed/shot. Table 3 shows the factors associated with being stabbed/shot among women reporting any violence. The only demographic factors associated with this severe physical violence were having a stable partner and being divorced/widowed. On the other hand, reporting other types of violence merged as the strongest predictors of being stabbed/Shot: being spanked/choked increased its likelihood by almost 7-fold (aOR 6.63 [2.07–21.84]) its likelihood, while threats with a weapon increased 18 times (aOR 18.59 [3.86–89.42]).

Discussion

The present study found that the prevalence of any physical violence (i.e. threats to beat/push/kick, beaten/pushed/kicked, spanked/choked, threats with knife/gun, and/or stabbed/shot) among Brazilian women was 5.5%. Young women (18-24 years), without a stable partner, black/mixed, unemployed/in informal jobs, and living in urban areas were more likely to report it. We also found evidence of escalation of violence: women who reported the most severe types of violence also reported higher numbers of types of violence. In addition, we found that, among women who reported some type of violence, the most important factors associated with being stabbed /shot (the most severe cases of physical violence) were also reporting of other less serious types of violence.

Our results are consistent with those observed in other available sources, such as Visible and Invisible: The Victimisation of Women in Brazil, which used women over 16 years of age. According to it, in 2020, 1 in 4 Brazilian women have suffered some type of violence or aggression in the last 12 months; 2.07% reported having suffered threats of physical violence such as slapping, pushing or kicking; 1.53% were physically assaulted with slaps, punches or kicks; 0.75% suffered threats with a knife (blank weapon) or firearm; and 0.58% were beaten or had attempted strangulation (Bueno et al., 2021).

The prevalence of any physical violence was similar to the PNS (National Health Survey) (IBGE, 2021b), with national coverage. The PNS found a 4.2% prevalence of physical violence, although there were differences in the definitions of violence. Such differences in definitions are not restricted to Brazilian studies. Low quality and different indicators make it hard to evaluate and compare results worldwide (Rutherford et al., 2007). There is a shortage in the production of VAW statistics, due to the different aims and compulsory duties of the national statistical systems (e.g. as a benchmark for national decisions on policy and economics), their scope and operations, and marked differences in data availability and quality. Also, for several countries providing data on this and other key issues, there is a variety of sources and different methodological caveats (as discussed extensively by Sen (1991) respecting the broad issue of Inequality). Due to such reasons, since the 1995 Beijing Platform for Action (one of the most progressive instruments for advancing women's rights and gender equality) gender-disaggregated data and detailed statistics have been strongly recommended. The 129 'Action to be taken' highlights the role of Governments and other research institutions to:

Promote research, collect data, and compile statistics, especially concerning domestic violence, relating to the prevalence of different forms of violence against women, and encourage research into the causes, nature, seriousness and consequences of violence against women and the effectiveness of measures implemented to prevent and redress violence against women (UN, 1995, p. 55).

Abuse, aggression, and violence against young women in the most different societies is so prevalent that in some of them (e.g. the USA) there are dedicated programs to curb and provide support

Table 2. Characteristics of the study population (overall vs. any violence), and factors associated with any Violence. BHSU-3. Brazil, 2015.

Variables		Overall			Any Violence in previous 12-months							
					Yes		No					
		Est. Pop. N (x1000)	Prev.	SE	Prev.	SE	Prev.	SE	OR [95%CI]	*P*	aOR [95%CI]	*P*
Age	>54	11,305	16.13%	<1%	10.32%	1%	16.47%	<1%	Ref	–	Ref	–
	18–24	10,657	15.21%	<1%	20.52%	2%	14.90%	<1%	2.2[1.53;3.15]	<0.001	2.03[1.34;3.06]	<0.001
	25–54	48,113	68.66%	<1%	69.16%	2%	68.63%	<1%	1.61[1.21;2.14]	<0.001	1.65[1.22;2.23]	<0.001
Colour/Race	White	32,292	46.08%	1%	40.5%	3%	46.41%	1%	Ref	–	Ref	–
	Black/Mixed	36,884	52.64%	1%	58.38%	3%	52.30%	1%	1.28[1.03;1.59]	0.03	1.22[0.98;1.51]	0.07
	Others	898	1.28%	<1%	1.12%	<1%	1.29%	<1%	0.99[0.41;2.41]	0.99	0.93[0.38;2.3]	0.88
Schooling	Complete Funda.	14,474	20.65%	1%	18.84%	2%	20.76%	1%	Ref	–	Ref	–
	Incomplete Funda.	23,060	32.91%	1%	32.39%	2%	32.94%	1%	1.08[0.8;1.47]	0.61	1.26[0.92;1.73]	0.15
	Complete High School	32,541	46.44%	1%	48.78%	2%	46.30%	1%	1.16[0.89;1.52]	0.28	1.16[0.87;1.55]	0.32
Stable Partner	Yes	48,545	69.28%	1%	59.89%	2%	69.83%	1%	Ref	–	Ref	–
	No	21,529	30.72%	1%	40.11%	2%	30.17%	1%	1.55[1.26;1.91]	<0.001	1.34[1.02;1.78]	0.04
Marital Status	Married	35,103	50.09%	1%	39.67%	2%	50.70%	1%	Ref	–	Ref	–
	Single	26,079	37.22%	1%	46.76%	3%	36.66%	1%	1.63[1.3;2.05]	<0.001	1.24[0.95;1.63]	0.11
	Divorced/Widowed	8,892	12.69%	0 < 1%	13.57%	2%	12.64%	<1%	1.37[1.02;1.84]	0.04	1.21[0.83;1.75]	0.32
Number of children	None	13,784	19.67%	1%	21.77%	2%	19.55%	1%	Ref	–	Ref	–
	1	56,291	80.33%	1%	78.23%	2%	80.45%	1%	0.87[0.69;1.11]	0.27	1.22[0.9;1.66]	0.2
Income	+4MW	10,740	15.33%	1%	16.61%	2%	15.25%	1%	Ref	–	Ref	–
	Up to 1MW	11,881	16.96%	1%	21.63%	2%	16.68%	1%	1.19[0.85;1.68]	0.32	1.07[0.75;1.53]	0.72
	Btw 1-4MW	47,453	67.72%	1%	61.76%	2%	68.07%	1%	0.83[0.65;1.08]	0.16	0.76[0.58;0.99]	0.05
Ocupation	Regular Job	23,830	34.01%	1%	31.59%	2%	34.15%	1%	Ref	–	Ref	–
	Informal Job	10,637	15.18%	1%	18.15%	2%	15.01%	1%	1.31[0.97;1.77]	0.08	1.33[1;1.79]	0.05
	Unemployed	8,419	12.01%	<1%	17.21%	2%	11.71%	<1%	1.59[1.16;2.17]	<0.001	1.38[0.98;1.94]	0.07
	Econ. Inactive	27,189	38.80%	1%	33.05%	2%	39.14%	1%	0.91[0.71;1.17]	0.48	1[0.76;1.32]	0.97
Location	Rural	10,806	15.42%	1%	7.46%	1%	15.89%	1%	Ref	–	Ref	–
	Urban	59,269	84.58%	1%	92.54%	1%	84.11%	1%	2.34[1.6;3.43]	<0.001	2.44[1.62;3.66]	<0.001

[a]Variable selection was conducted following the AIC and Anova Chi-square Test procedure, as described in the methodology section. Models are adjusted for Age, Colour/Race, Stable Partner, Marital Status, Number of Children, Income, Ocupation and Location. SE = Standard Error, Prev. = Prevalence, (a)OR = (adjusted) Odds Ratio and CI = Confidence Interval.

Table 3. Characteristics of women reporting any violence (overall and stratified by being Stabbed/shot), and factors associated with being stabbed/shot. BHSU-3. Brazil, 2015.

		Any Violence			Stabbed/shot in previous 12-months							
					Yes		No					
Variables		Est.Pop.N (x1000)	Prev.	SE	Prev.	SE	Prev.	SE	OR [95%CI]	*p*	aOR [95%CI]	*P*
Age	>54	399	10.32%	1%	12.31%	7%	10.24%	1%	Ref	–	Ref	–
	18–24	795	20.52%	2%	21.60%	11%	20.48%	2%	0.88[0.16;4.66]	0.88	0.79[0.14;4.47]	0.79
	25–54	2,679	69.16%	2%	66.08%	12%	69.28%	2%	0.79[0.23;2.78]	0.72	0.54[0.15;1.95]	0.35
Colour/Race	White	1,569	40.50%	3%	29.06%	11%	40.96%	3%	Ref	–	Ref	–
	Black/Mixed	2,261	58.38%	3%	66.07%	11%	58.07%	3%	1.6[0.57;4.53]	0.37	1.94[0.53;7.13]	0.32
	Others	43	1.12%	<1%	4.88%	5%	0.97%	<1%	7.09[0.64;78.39]	0.11	4.9[0.34;70.3]	0.24
Schooling	Complete Fund.	729	18.84%	2%	17.10%	9%	18.91%	2%	Ref	–	Ref	–
	Incomplete Fund.	1,254	32.39%	2%	51.17%	12%	31.63%	3%	1.79[0.48;6.73]	0.39	1.71[0.34;8.52]	0.52
	Comp. High School	1,889	48.78%	2%	31.74%	10%	49.46%	3%	0.71[0.19;2.59]	0.6	0.4[0.07;2.29]	0.31
Stable Partner	Yes	2,320	59.89%	2%	90.49%	6%	58.66%	3%	Ref	–	Ref	–
	No	1,553	40.11%	2%	9.51%	6%	41.34%	3%	0.15[0.04;0.61]	0.01	0.15[0.03;0.67]	0.01
Marital Status	Married	1,536	39.67%	2%	43.80%	12%	39.51%	3%	Ref	–	Ref	–
	Single	1,811	46.76%	3%	38.65%	12%	47.08%	3%	0.74[0.26;2.14]	0.58	2.26[0.59;8.61]	0.23
	Divorc./Widowed	525	13.57%	2%	17.55%	9%	13.41%	2%	1.18[0.33;4.18]	0.8	8.41[1.75;40.34]	0.01
Number of children	None	843	21.77%	2%	15.98%	7%	22.00%	2%	Ref	–	Ref	–
	1	3,030	78.23%	2%	84.02%	7%	78.00%	2%	1.48[0.49;4.53]	0.49	0.79[0.26;2.43]	0.68
Income	+4MW	643	16.61%	2%	18.91%	8%	16.52%	2%	Ref	–	Ref	–
	Up to 1MW	837	21.63%	2%	22.73%	11%	21.58%	2%	0.92[0.22;3.89]	0.91	0.69[0.14;3.49]	0.66
	Btw 1-4MW	2,392	61.76%	2%	58.36%	12%	61.9%	2%	0.82[0.27;2.54]	0.74	1.54[0.37;6.46]	0.56
Ocupation	Regular Job	1,223	31.59%	2%	26.13%	10%	31.81%	2%	Ref	–	Ref	–
	Informal Job	703	18.15%	2%	19.33%	9%	18.10%	2%	1.3[0.31;5.46]	0.72	1.44[0.36;5.65]	0.61
	Unemployed	666	17.21%	2%	21.30%	10%	17.05%	2%	1.52[0.36;6.42]	0.57	0.8[0.16;3.98]	0.78
	Econ. Inactive	1,280	33.05%	2%	33.24%	11%	33.05%	2%	1.22[0.37;4.03]	0.74	0.96[0.26;3.54]	0.95
Location	Rural	289	7.46%	1%	10.27%	7%	7.35%	1%	Ref	–	Ref	–
	Urban	3,584	92.54%	1%	89.73%	7%	92.65%	1%	0.69[0.15;3.23]	0.64	0.34[0.08;1.38]	0.13
Threats to beat/push/kick	No	1,214	31.35%	3%	39.57%	11%	31.01%	3%	Ref	–	Ref	–
	Yes	2,659	68.65%	3%	60.43%	11%	68.99%	3%	0.69[0.27;1.77]	0.44	1.23[0.38;3.95]	0.73
Beaten/pushed/kicked	No	2,127	54.92%	3%	48.23%	12%	55.19%	3%	Ref	–	Ref	–
	Yes	1,746	45.08%	3%	51.77%	12%	44.81%	3%	1.32[0.51;3.43]	0.57	0.93[0.28;3.15]	0.91
Spancked/choked	No	3,431	88.57%	2%	56.50%	12%	89.86%	2%	Ref	–	Ref	–
	Yes	442	11.43%	2%	43.50%	12%	10.14%	2%	6.82[2.46;18.93]	<0.001	6.73[2.07;21.84]	<0.001
Threats with knife/gun	No	2,559	66.08%	2%	11.09%	8%	68.29%	2%	Ref	–	Ref	–
	Yes	1,314	33.92%	2%	88.91%	8%	31.71%	2%	17.26[3.45;86.35]	<0.001	18.59[3.86;89.42]	<0.001

[a]Variable selection was conducted following the AIC and Anova Chi-square Test procedure, as described in the methodology section. Models are adjusted for Stable Partner, Threats with knife/gun and Spancked/choked. SE = Standard Error, Prev. = Prevalence, (a)OR = (adjusted) Odds Ratio and CI = Confidence Interval.

to this population segment. According to the National Center on Safe Supportive Learning Environments (n.d.), 1 in 10 teenagers suffers physical violence in the hands of boyfriend or girlfriend. The violence against young women ages 16–24 is also very pronounced and of much concern.

Women who have been threatened by their partner and especially those who are already separated or divorced from them are the main targets of aggression and violence (Bueno et al., 2023). We were not able to evaluate intimate partner violence in the context of this study, but VAW frequently takes place in the context of households and is perpetrated by a current or ex – partner (Bueno et al., 2023; Cerqueira et al., 2019; WHO, 2021b). Diadic relationships cannot be explored in studies where a single respondent per household is randomly selected. This would be against the study sampling plan (in this step using the Kish grid) and above all unethical.

The engagement in the labour market is a double-edged sword element. From one point of view, is a worldwide consensus that women who are engaged in the labour market have a degree of autonomy vis-à-vis their abusive partners. On the other hand, in a society where machismo is not only pervasive but actively promoted by right-wing politicians and their social networks, TV programs and tabloids, women´s autonomy and empowerment may be viewed as a threat to centuries-long male dominance and may trigger violent reactions by frustrated 'machos'. No longer controlling their female partners, they recur to intimidation, threats and open violence to convince women to move backwards towards their traditional roles since Colonial times (Besse, 2018).

The underlying reason of violence seems to differ for each specific society. In Brazil and several other societies where patriarchal authority and deeply entrenched gender inequality have been rather reshaped than challenged (Besse, 2018), families and social relationships tend to be characterised by a deep unbalance and a flawed but strong hierarchy. Among the most vulnerable strata one can count young women who have to face authoritarian parents and many times abusive partners, that basically reproduce (sometimes, unconsciously) the centuries-long structures of power as well as social, age, ethnic and gender inequalities.

Indeed, WHO advocates '[To] strengthen women's economic rights' and '[To] eliminate gender inequalities in access to formal wage employment and secondary education' as necessary interventions to prevent VAW (WHO, 2021a). In Brazil, the proportion of women with complete secondary education is higher than among men (19% vs. 15%, respectively), but such a key element of social capital is not reflected in the labour market. While 30% of women work less than 30 h/week, this proportion is 15% among men − and yet, women earn about 78% of men's salary. Additionally, women are overwhelmed with domestic chores and caring for others, spending about21 hours/week for this, while men spend only 11h (IBGE, 2021a).

VAW may occur following an escalation over time, from threats to aggression and lethality. It is noteworthy that the main factors associated with severe physical violence in our study were reporting other types of violence – and not sociodemographic characteristics. Such finding reinforces the urgent need for legal protection for women who report any type of physical violence, as a way to prevent severe injuries and death. The UN Women, in 2015, launched the 'Essential Services Package for women and girls subject to violence' (UN, 2015). The package highlights the importance of providing coordinated multisectorial services (health, justice and policing, and social services) for the victims. Specifically, regarding health, the package provides guidance on six topics, 'Identification of the victims, first-line support, care of injuries and urgent medical treatment, sexual assault examination and care, mental health assessment and care, and documentation' (UN, 2015, p. 18). Reviewing, adapting to local culture/structure and implementing the guidelines could guide the efforts to fight VAW. Some actions Over the time, significant implemented in the world with evidence of success, include erthe 'One-stop centers' (UN, 2017) where victims receive all the services at a single facility. Further improvements can be made in collecting data on training impact on provider attitudes and practices, in provider identification of VAW survivors, and in prioritising VAW in health system budget, staffing, and political priorities. Primary health facilities need to provide first-line support for survivors to avoid delays in responding to all forms of VAW, as well as in

secondary prevention (Mendonça et al., 2020). Additionally, spreading information on VAW is vital. Any individual (police officers, health professionals, neighbours, family, friends, etc.) should be aware that women suffering from physical violence are at risk of being murdered, and should be aware about possible actions to take. In Brazil, for example, since 2003 there is a government-sponsored 24/7 hotline to receive and investigate reports of VAW (Diário Oficial da União, 2003) – but the coverage and reach of this service has yet to be fully evaluated. Nonetheless, it can also occur as a sudden, unexpected episode, sometimes associated with intermittent explosive disorders. Our data showed that 20.4% of beat/push/kick cases occur without threats or any other physical violence episode; 12.5% of spanked/choked cases occur in similar situations. Of course, this number is likely to be overestimated due to other forms of violence that may have occurred, such as psychological violence, which our data do not capture. In any case, it is important to remember that the concept of 'intermittent' usually refers to the perpetrator, but it can be completely unexpected and new from the perspective of its potential victim. In Brazil, there is a lack of evidence on the characteristics of this escalation or a comprehensive description and profile of sudden episodes. Sound policies aiming at preventing or at least minimising interpersonal violence must be based both on broad data on different populations and on in-depth analysis of specific cases in context.

This work has some important limitations. First, information on violence does not specify the date, so that it is impossible to determine the chronology of episodes of violence and infer the sequence of its escalation over time. Second, the dataset does not provide information on the recurrence of the same type of violence, so the relationship between the recurrence of the same type of violence and the escalation of the severity of the violence over time cannot be discerned. Third, due to the small sample of women who were stabbed/shot [and survived this violent episode in order to be eligible for interviews] (the second outcome under analysis), the models have large confidence intervals. This is a secondary analysis nested in a survey where the simulations assessing precision (Rothman & Greenland, 2018) were based on the need to accurately define the patterns of substance use (Bastos, 2012). Precision is likely far from optimal for additional analyses, despite the fact the sample size is quite large. Notwithstanding, such analyses are key due to the fact the majority of other studies have to face the major challenge of statistical inference for non-probability samples. Fourth, it is possible that our data are underreported episodes of violence due to fear and stigma in reporting this type of information. Fifth, the BHSU-3 is not able to connect information about the perpetrator and each episode of violence reported to estimate that carried out by the intimate partner – which is the most frequent type of violence against women. Nevertheless, our work sheds light on violence against women in Brazil by profiting from a large probability sample. It should be considered as fundamental information for public policies aimed at improving gender equity.

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