DOI: 10.1590/1413-81232022279.07532022EN

Our daily violence according to PNS 2019 data

Maria Cecília de Souza Minayo (https://orcid.org/0000-0001-6187-9301) [1]
Liana Wernersbach Pinto (https://orcid.org/0000-0003-1928-9265) [1]
Cosme Marcelo Furtado Passos da Silva (https://orcid.org/0000-0001-7789-1671) [2]

Abstract *Based on the National Health Survey, this article aimed to verify the association between sociodemographic, health, and behavioral characteristics and the occurrence of psychological, physical, and sexual violence in Brazil in 2019. Logistic models were adjusted to four outcomes: Having experienced physical, psychological, or sexual violence in the last 12 months; having experienced psychological violence in the last 12 months; having experienced physical violence in the last 12 months; having experienced sexual violence in the last 12 months. There was a prevalence of 17.36% of psychological violence, 4.15% of physical violence, and 0.76% of sexual violence. The variables zone, sex, age group, skin color/race, marital status, per capita income, health status, mental health problem, and alcohol consumption remained in the final models. These results can and should contribute to adequate proposals for prevention and promotion actions since the National Policy for the Prevention of Accidents and Violence includes these social phenomena in the list of problems that cause illness and deaths.*

Key words *Violence, Health Surveys, Brazil*

[1] Departamento de Estudos sobre Violência e Saúde Jorge Careli, Escola Nacional de Saúde Pública Sergio Arouca (ENSP). Av. Brasil 4036, sala 700, Manguinhos. 21040-361 Rio de Janeiro RJ Brasil.
maminayo@terra.com.br
[2] Departamento de Epidemiologia e Métodos Quantitativos em Saúde, ENSP. Rio de Janeiro RJ Brasil.

Introduction

"Violence" was one of the 23 modules that made up the National Health Survey (PNS 2019)[1], carried out through a partnership among the Brazilian Institute of Geography and Statistics (IBGE), the Ministry of Health (MS), and the Oswaldo Cruz Foundation (Fiocruz). This issue entered the list of health policies in Brazil in 2001, when the National Policy for Reduction of Morbidity and Mortality by Accidents and Violence (PNRMAV) was promulgated[2]. Violence, as defined by the World Health Organization in *The World Report on Violence and Health* (WHO)[3] is the "intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation". This phenomenon that accompanies humanity occurs in society and has consequences for victims, perpetrators and community and affects people of all ages, classes, gender, and race/ethnicity differently[3].

Although media attention focuses on the most spectacular accidents and aggressions, violence continues to be present in the most different daily forms of interaction, and all of them affect health. The expressions that underlie social relationships are defined as "interpersonal violence," defined by the WHO as "the intentional use of physical force or power to attack or threaten someone, some group or the community, the result of which is injury, death, psychological suffering, personal and emotional underdevelopment, and deprivations"[3].

In the document *World Report on violence and health,* interpersonal violence is divided into two subcategories: family and intimate partner violence; and community violence, that happens between people who know each other or not and usually takes place outside the home. In the first case, the concept covers abuse and mistreatment of children and adolescents, aggression between intimate partners, and elder abuse. The second includes youth violence, sexual abuse, robberies, assaults and abuse in schools, workplaces, prisons, and long-term care facilities. In all the situations mentioned, there are physical, psychological, and sexual violence, and the recommendation that this typology needs to be known in its specificity in local studies, as they permeate family, work, hierarchical, and social relationships in general, causing suffering, pain, injury, and death[3-5].

The purpose of this article is to verify the association between sociodemographic, behavioral and self-rated health characteristics and the occurrence of psychological, physical and sexual violence in Brazil, in 2019, based on data from the National Health Survey.

Materials and methods

This article is a cross-sectional secondary-based study that used data from the PNS 2019, a national household-based survey carried out by the Brazilian Institute of Geography and Statistics (IBGE) in partnership with the Ministry of Health (MS), and the Oswaldo Cruz Foundation (Fiocruz). This research aimed to collect information on access and use of health services and on the health conditions of the population. More details about the study context and how data collection took place can be found in Stopa *et al.*[6].

The target population of the PNS is composed of individuals aged 15 years or older living in permanent private homes, being representative for Brazil, its Major Regions, Federation Units, Metropolitan Regions, Capitals, and Municipalities. It is worth noting that in the analysis of data on violence, only individuals aged 18 years or older participated, since the violence module was answered only by people from this age group.

In the PNS 2019, conglomerate sampling was used in three stages, with the census sectors or set of sectors, households and residents aged 15 years and over, constituting the first, second, and third stage units, respectively. The PNS is part of the Integrated System of Household Surveys (SIPD), using the same master sample as the continuous National Household Sample Survey (PNAD). Further details on the sampling process and the data collection process can be found in previous publications[1,6].

Four outcome variables were considered, namely: (1) "having experienced psychological, physical, or sexual violence in the last 12 months;" (2) "having experienced psychological violence in the last 12 months;" (3) "having experienced physical violence in the last 12 months;" and (4) "having experienced sexual violence in the last 12 months." The prevalence of each of the four outcomes was calculated considering the proportion of positive responses for each of them. The same procedure was applied to each of the categories of explanatory variables.

The outcome "having experienced psychological, physical, or sexual violence in the last 12

Ciência & Saúde Coletiva, 27(9):3701-3714, 2022

months" was created from the combination of three other variables previously created, namely: "having experienced psychological violence in the last 12 months," "having experienced physical violence in the last 12 months," and "having experienced sexual violence in the last 12 months".

Psychological violence was measured using five questions from the questionnaire: "In the last twelve months, has anyone insulted, humiliated, or ridiculed you in front of other people?"; "In the last twelve months, has anyone yelled at you or called you names?"; "In the last twelve months, has anyone used social media or a cell phone to threaten, offend, curse, or expose images of you without your consent?"; "In the last twelve months, has anyone threatened to hurt or harm someone important to you?"; and "In the last twelve months, has anyone deliberately destroyed anything of yours?".

In order to obtain the variable related to physical violence, the following questions were used: "In the last twelve months, has anyone slapped or slapped you?"; "In the last twelve months, has anyone pushed you, held you tight, or thrown something at you with the intention of hurting you?"; "In the last twelve months, has anyone punched, kicked, or dragged you by your hair?"; "In the last twelve months, has anyone tried or effectively strangled, suffocated, or burned you on purpose?"; and "In the last twelve months, has anyone threatened or injured you with a knife, firearm, or any other weapon or object?".

For sexual violence, two questions from the questionnaire were used, namely: "In the last twelve months, has anyone touched, manipulated, kissed, or exposed parts of your body against your will?" and "In the last twelve months, has anyone threatened or forced you to have sex or any other sexual acts against your will?".

In the elaboration of variables related to psychological, physical, and sexual violence, the presence of a positive answer to any of the questions represented victimization by that form of violence.

The explanatory variables used were organized into three blocks, namely:

- *Sociodemographic*: zone (urban and rural); region (North, Northeast, Southeast, South, and Midwest); sex (male and female); age group (19 to 29 years old, 30 to 39 years old, 40 to 49 years old, 50 to 59 years old, 60 years old or older); skin color/race (White, Asian, Black or Brown, and Indigenous); marital status (married, divorced or legally separated, widowed, single); education (no education or incomplete elementary school, complete elementary school or incomplete high school, complete high school or incomplete higher education, complete higher education); income (up to ½ minimum wage, more than ½ to 1 minimum wage, more than 1 to 2 minimum wages, more than 2 to 5 minimum wages, more than 5 minimum wages);

- *Health*: self-assessment of health status (very good, good, regular, bad, very bad); diagnosis of depression or other mental illness (no, yes);

- *Behavioral*: alcohol consumption (I never drink, less than once a month, once or more times a month).

The entire weighting and post-stratification process has been carried out by the IBGE, and it is expected, given the probabilistic sample design and the procedures employed, that the correctly calculated estimators do not present biases. Sampling design and weights were included in all analyses.

In order to verify the factors associated with each of the four outcomes under analysis, Poisson regression models have been adjusted using the non-automated *backward* variable selection method. Initially, we included in the models all variables that had a p-value lower than 0.25 in the simple model. We calculated crude and adjusted prevalence ratios, as well as their respective 95% confidence intervals. In the final model, we kept variables with p-values lower than 0.05. The analyzes were carried out in the R software version 4.1.3, using the libraries *survey* and *tableone*.

The PNS was approved by the National Research Ethics Committee (CONEP), of the National Health Council (CNS), in August 2019. The research complies with all the norms and guidelines of Resolution 466/2012 of the CNS, and all respondents were informed and signed the Informed Consent Form (ICF).

Results

Analysis of PNS data shows that 18.3% of people aged 18 and over experienced psychological, physical, or sexual violence in 2019. Its distribution according to Region and Federation Unit (UF) can be seen in Figure 1, where 13 of the 27 UF presented a proportion above the national estimate, that is, they were above 18.3%. The highest prevalences were observed in Sergipe (24.9%), Roraima (22.3%), Bahia (21.8%), and Mato Grosso do Sul (20.6%) states. And the lowest in Acre (12.4%), Santa Catarina (13.3%), Mato Grosso (14.8%), and Rondônia (15.5%) states.

Table 1 presents the distributions of sociodemographic characteristics, health status, and alcohol consumption according to victimization by psychological, physical, or sexual violence, analyzed in aggregate. The table shows a slightly higher percentage of occurrences of violence among urban residents. The percentages of victimization according to the region of the country are very similar, ranging from 16.65% in the South to 18.72% in the Northeast. Among women, 19.38% reported having experienced violence, against 17.01% for men. As for the age group, there is a higher prevalence among younger people and a decrease with advancing age. Who also stands out are those with black or indigenous skin color/race (19.59%), single people (22.90%), with complete or incomplete elementary school education (20.71%), and income up to ½ minimum wage (21.39%). Regarding health status, there is an increase in the prevalence of victimization by violence as the individual's assessment of their own health worsens. Thus, the results identified in the table show that the prevalence of violence was 16.90% among those who rated their health status as very good against 29.57% among those who rated it as very bad. Regarding mental health, there is a higher occurrence of victimization by violence among those who reported having mental health problems (31.56%). The table also shows that as alcohol consumption increases, so does victimization by violence. There was a significant difference in the prevalence for all variables analyzed, with $p<0.04$ for the region variable and $p<0.001$ for the others.

Table 2 shows the distribution of explanatory variables according to the type of violence suffered. The difference in victimization according to the nature of the violence is noteworthy, with psychological violence being the most mentioned among the interviewees (17.36%). Higher prevalence is observed among those who live

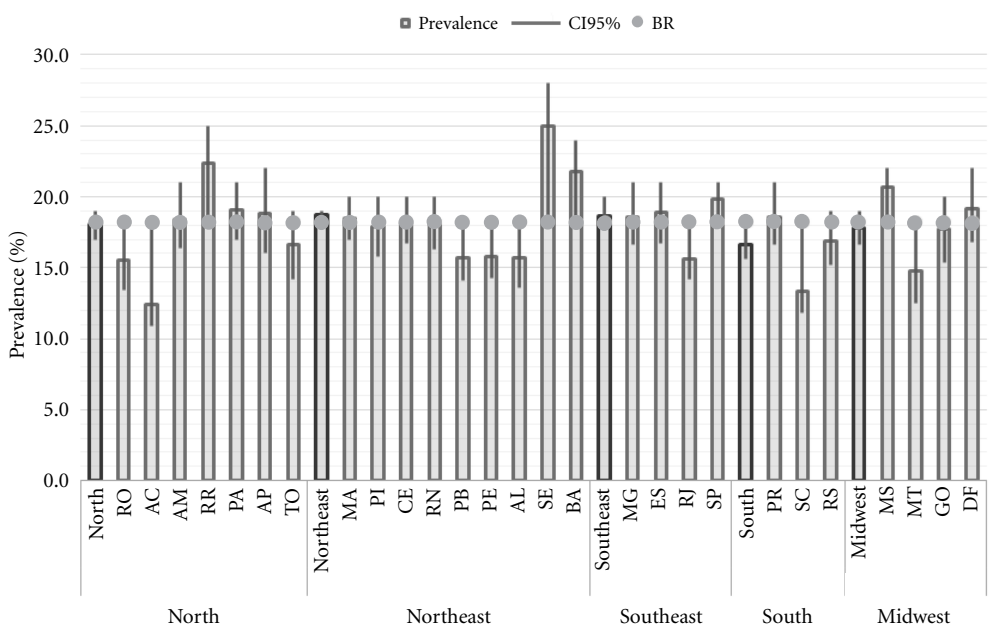

Figure 1. Proportion of people aged 18 years and over who experienced violence (psychological, physical, or sexual) in the last 12 months prior to the interview, according to UF and Region of the country, Brazil, 2019.

Note: CI95%: 95% confidence interval.

Source: National Health Survey, 2019.

Table 1. Prevalence (%) of violence in the Brazilian adult population (≥18 years old) according to sociodemographic characteristics, health status, mental health problem, and alcohol consumption, Brazil, 2019.

Variables	% Experienced violence	p-value
Total	18.27	
Zone		<0.001
Rural	14.21	
Urban	18.92	
Region		0.04
North	18.13	
Northeast	18.72	
Southeast	18.64	
South	16.65	
Midwest	17.84	
Sex		<0.001
Male	17.01	
Female	19.38	
Age group		<0.001
18 to 29 years	27.00	
30 to 39 years	20.43	
40 to 49 years	18.50	
50 to 59 years	14.47	
60 or more	10.05	
Skin color/race		<0.001
White or Asian	16.60	
Black/brown or indigenous	19.59	
Marital status		<0.001
Married	14.33	
Divorced, legally separated	22.36	
Widower	10.80	
Single	22.90	
Education		<0.001
No education or incomplete elementary school	15.35	
Complete elementary school or incomplete high school	20.71	
Complete high school or incomplete higher education	19.94	
Complete higher education	18.78	
Per capita income		<0.001
Up to ½ minimum wage	21.39	
More than ½ up to 1 minimum wage	18.05	
More than 1 to 2 minimum wage	17.14	
More than 2 to 5 minimum wages	16.77	
More than 5 minimum wages	16.89	
Health condition		<0.001
Very good	16.90	
Good	17.01	
Regular	19.94	
Bad	23.64	
Too bad	29.57	
Mental health problem		<0.001
No	16.19	
Yes	31.56	
Alcohol consumption		<0.001
I never drink	16.34	
Less than once a month	19.25	
One or more times a month	21.58	

Source: National Health Survey, 2019.

in urban areas. As for the region of the country, similar percentages of victimization can be found, ranging from 15.90% to 17.83% for psychological violence, 3.84% to 4.71% for physical violence, and from 0.49% to 0.93% for sexual violence, these, however, were not significant. Females show a higher prevalence for all types of violence, without, however, showing a significant difference for physical violence. Those of younger age groups and of black/brown or indigenous skin color/race are also noteworthy. However, it is worth mentioning that the skin color/race variable was not significant for victimization by sexual violence. The three forms of violence occur more frequently among single people, with those who have complete elementary education and incomplete secondary education, and with those who earn up to ½ minimum wage. Again, a gradient is observed for the variables of health status and alcohol consumption. Thus, those with worse health status exhibited a higher prevalence of violence, as well as those who reported higher alcohol consumption. However, the health status variable did not show statistical significance for sexual violence. There is also higher prevalence among those who reported having mental health problems.

Table 3 shows the crude and adjusted prevalence ratios for the variables included in the final model for the outcome "having experienced psychological, physical, or sexual violence in the last 12 months". Living in an urban area represents a 33% higher risk of experiencing violence. Women have an 8.0% higher prevalence of experiencing violence compared to men, controlling for the other variables. In relation to age, a gradient is noticed, with a decrease in the prevalence of experiencing violence as one advances to the older age groups. Thus, we can observe that the prevalence for the youngest (18 to 29 years old) is 1.58 times higher when compared to the 60 years old or more category, adjusting for the other variables. Black or indigenous skin color/race individuals showed a 13% higher prevalence when compared to white or Asian individuals, controlling for the other variables. The prevalence increases for divorced/legally separated (22%) and decreases for widowed (18%) and married (17%) when these categories are compared to singles, after controlling for the other variables. In relation to income, a 9.0% lower prevalence is observed among those who earn from ½ to two minimum wages, and among those who earn more than ½ to one minimum wage, after adjustment for the other variables. A gradient for the variables of health status and alcohol consumption was also identified. Thus, the table shows that the prevalence of having experienced violence increases as the individual's health assessment worsens. A similar situation is observed for alcohol consumption, whose prevalence ratio increases as use increases, being 27% higher among those who reported drinking alcohol once or more times a month when compared to individuals who reported never drinking, after adjustment by the other variables. Finally, there was a 77% increase in the prevalence ratio of victimization by some form of violence among those who reported having a mental health problem.

Table 4 shows the final model for victimization by psychological violence, in which a pattern quite similar to that of aggregate violence can be observed (Table 3). Thus, living in an urban area, being female, being young (18 to 29 years old), having black or indigenous skin color/race, being divorced, mentioning poor or very poor health status, reporting a mental health problem, and consuming alcohol once or more times a month, resulted in an increased prevalence when compared to the base categories of these variables. As for the being married or widowed and having an income of ½ to 1 minimum wage categories, they showed lower prevalence in relation to the basic categories.

Regarding victimization by physical violence (Table 5), again a pattern similar to those observed for the outcomes of aggregate (Table 3) and psychological (Table 4) violence. It can be seen from the table that the percentages of increase in prevalence is much more pronounced for the youngest age group, being of black/indigenous skin color/race, having poor or very poor health status, and reporting alcohol consumption. As for marital status, only the "married" category was statistically significant, with a 31% lower prevalence when compared to singles. Another difference is in relation to the income variable, where we observed that not only were all categories significant, but that as income increases, the prevalence of victimization by physical violence tends to reduce.

The final model for sexual violence (Table 6) presented some even higher prevalence than those observed for physical violence. Additionally, there was no significance for the zone variable (excluded from the final model) and the region variable was included. In this variable, the table shows that belonging to the South region leads to a 40% lower prevalence of experiencing this form of violence in relation to the Midwest re-

Table 2. Prevalence (%) of violence (psychological, physical, and sexual) in the Brazilian adult population (≥18 years old) according to sociodemographic characteristics, health status, mental health problem, and alcohol consumption, Brazil, 2019.

Variables	Psychological violence		Physical violence		Sexual violence	
	% experienced	p-value	% experienced	p-value	% experienced	p-value
Total	17.36		4.15		0.76	
Zone		<0.001		0.004		0.895
Urban	18.00		4.27		0.77	
Rural	13.38		3.39		0.75	
Region		0.051		0.174		0.097
North	16.94		4.71		0.85	
Northeast	17.67		4.47		0.93	
Southeast	17.83		3.98		0.72	
South	15.90		3.84		0.49	
Midwest	16.87		4.02		0.87	
Sex		<0.001		0.503		<0.001
Male	15.98		4.05		0.45	
Female	18.58		4.24		1.05	
Age group		<0.001		<0.001		<0.001
18 to 29 years	25.32		7.65		1.61	
30 to 39 years	19.70		4.51		0.61	
40 to 49 years	17.60		3.87		0.94	
50 to 59 years	13.72		2.74		0.39	
60 or more	9.63		1.55		0.20	
Skin color/race		<0.001		<0.001		0.569
White or Asian	15.89		3.12		0.72	
Black or brown or indigenous	18.52		4.96		0.80	
Marital status		<0.001		<0.001		<0.001
Married	13.76		2.52		0.29	
Divorced, legally separated	21.18		4.73		1.08	
Widower	10.48		2.21		0.27	
Single	21.59		6.05		1.29	
Education		<0.001		<0.001		0.161
No education or incomplete elementary school	14.43		3.84		0.65	
Complete elementary school or incomplete high school	19.63		6.19		0.93	
Complete high school or incomplete higher education	18.96		4.2		0.90	
Complete higher education	18.19		2.84		0.58	
Per capita income		<0.001		<0.001		<0.001
Up to ½ minimum wage	20.26		5.84		1.25	
More than ½ up to 1 minimum wage	17.03		4.42		0.65	
More than 1 to 2 minimum wages	16.40		3.3		0.64	
More than 2 to 5 minimum wages	16.01		3.31		0.58	
More than 5 minimum wages	16.18		2.55		0.55	
Health condition		<0.001		<0.001		0.093
Very good	16.13		3.32		0.62	
Good	16.09		3.87		0.67	
Regular	18.90		4.73		0.95	
Bad	23.06		5.76		1.08	
Too bad	29.16		6.88		0.90	
Mental health problem		<0.001		<0.001		<0.001
No	15.28		3.64		0.63	
Yes	30.67		7.42		1.62	
Alcohol consumption		<0.001		<0.001		0.006
I never drink	15.64		3.26		0.61	
Less than once a month	18.15		4.61		0.86	
One or more times a month	20.37		5.66		1.02	

Source: National Health Survey, 2019.

Table 3. Crude and adjusted prevalence ratios (PR) of variables in the final model of the occurrence of psychological, physical or sexual violence in the Brazilian adult population (≥18 years old), Brazil, 2019.

Variables	Crude PR	CI95%	Adjusted PR	CI95%
Zone				
Rural	-	-	-	-
Urban	1.33	1.24-1.43	1.33	1.25-1.44
Sex				
Male	-	-	-	-
Female	1.14	1.08-1.20	1.08	1.02-1.13
Age group				
18 to 29 years	2.69	2.48-2.91	2.58	2.35-2.83
30 to 39 years	2.03	1.86-2.22	2.00	1.80-2.20
40 to 49 years	1.84	1.68-2.01	1.74	1.58-1.91
50 to 59 years	1.44	1.31-1.58	1.36	1.24-1.50
60 or more	-	-	-	-
Skin color/race				
White or Asian	-	-	-	-
Black/brown or indigenous	1.18	1.12-1.25	1.13	1.06-1.19
Marital status				
Married	0.63	0.59-0.66	0.83	0.79-0.89
Divorced. legally separated	0.98	0.90-1.06	1.22	1.12-1.34
Widower	0.47	0.42-0.54	0.82	0.72-0.95
Single	-	-	-	-
Per capita income				
Up to ½ minimum wage	-	-	-	-
More than ½ up to 1 minimum wage	0.84	0.79-0.90	0.91	0.85-0.98
More than 1 to 2 minimum wage	0.80	0.74-0.87	0.91	0.84-0.99
More than 2 to 5 minimum wages	0.78	0.71-0.86	0.92	0.84-1.02
More than 5 minimum wages	0.80	0.70-0.89	0.95	0.84-1.08
Health condition				
Very good	-	-	-	-
Good	1.12	1.03-1.21	1.19	1.09-1.29
Regular	1.56	1.43-1.69	1.68	1.54-1.83
Bad	1.81	1.58-2.07	1.90	1.68-2.16
Too bad	1.95	1.60-2.36	1.99	1.64-2.42
Mental health problem				
No	-	-	-	-
Yes	2.07	1.92-2.23	1.77	1.67-1.88
Alcohol consumption				
I never drink	-	-	-	-
Less than once a month	1.18	1.09-1.28	1.09	1.01-1.18
One or more times a month	1.32	1.24-1.41	1.27	1.18-1.35

Source: National Health Survey, 2019.

gion, controlling for the other variables. After adjusting for the other variables, we found an increased prevalence for females (133.0%), for the age group ranging from 18 to 29 years old (464.0%), for very poor health status (230.0%), for mental health problems (114.0%), and for alcohol consumption once or more times a month (69%), when compared to the base categories. We observed gradients for the "health status" and "alcohol consumption" variables. Being married showed a 67.0% lower prevalence of experiencing sexual violence compared to being single,

Table 4. Crude and adjusted prevalence ratios (PR) of variables in the final model of the occurrence of psychological violence in the Brazilian adult population (≥18 years old), Brazil, 2019.

Variables	Crude PR	CI95%	Adjusted PR	CI95%
Zone				
Rural	-	-	-	-
Urban	1.35	1.25-1.45	1.35	1.25-1.45
Sex				
Male	-	-	-	-
Female	1.16	1.10-1.23	1.09	1.03-1.15
Age group				
18 to 29 years	2.63	2.42-2.86	2.57	2.34-2.83
30 to 39 years	2.05	1.87-2.24	2.03	1.83-2.25
40 to 49 years	1.83	1.67-2.00	1.74	1.58-1.92
50 to 59 years	1.43	1.29-1.57	1.36	1.23-1.50
60 or more	-	-	-	-
Skin color/race				
White or Asian	-	-	-	-
Black/brown or indigenous	1.17	1.10-1.23	1.11	1.05-1.18
Marital status				
Married	0.64	0.60-0.68	0.85	0.79-0.91
Divorced. legally separated	0.98	0.90-1.07	1.22	1.11-1.33
Widower	0.49	0.43-0.55	0.84	0.73-0.97
Single	-	-	-	-
Per capita income				
Up to ½ minimum wage	-	-	-	-
More than ½ up to 1 minimum wage	0.84	0.78-0.90	0.91	0.85-0.97
More than 1 to 2 minimum wage	0.81	0.75-0.88	0.92	0.85-1.01
More than 2 to 5 minimum wages	0.79	0.72-0.87	0.93	0.84-1.02
More than 5 minimum wages	0.80	0.71-0.90	0.96	0.84-1.09
Health condition				
Very good	-	-	-	-
Good	1.11	1.02-1.20	1.17	1.08-1.28
Regular	1.56	1.43-1.70	1.68	1.53-1.84
Bad	1.84	1.61-2.12	1.93	1.69-2.20
Too bad	2.00	1.64-2.44	2.02	1.65-2.47
Mental health problem				
No	-	-	-	-
Yes	2.01	1.89-2.14	1.81	1.70-1.92
Alcohol consumption				
I never drink	-	-	-	-
Less than once a month	1.16	1.07-1.26	1.08	0.99-1.17
One or more times a month	1.3	1.22-1.39	1.26	1.17-1.35

Source: National Health Survey, 2019.

controlling for the other variables in the model. Another interesting point is that the final model for this form of violence did not include the skin color/race and per capita income variables.

Discussion

Analysis of PNS data shows that 18.3% of people aged 18 and over said they experienced psy-

Table 5. Crude and adjusted prevalence ratios (PR) of the variables in the final model of the occurrence of physical violence in the Brazilian adult population (≥18 years old), Brazil, 2019.

Variables	Crude PR	CI95%	Adjusted PR	CI95%
Zone				
Rural	-	-	-	-
Urban	1.26	1.08-1.48	1.37	1.17-1.60
Age group				
18 to 29 years	4.92	4.06-5.97	4.17	3.21-5.40
30 to 39 years	2.90	2.36-3.57	2.65	2.02-3.49
40 to 49 years	2.49	1.97-3.14	2.25	1.70-2.98
50 to 59 years	1.76	1.41-2.20	1.64	1.28-2.09
60 or more	-	-	-	-
Skin color/race				
White or Asian	-	-	-	-
Black/brown or indigenous	1.59	1.40-1.79	1.37	1.22-1.55
Marital status				
Married	0.42	0.35-0.49	0.69	0.58-0.81
Divorced. legally separated	0.78	0.65-0.94	1.22	0.99-1.49
Widower	0.36	0.28-0.50	0.96	0.66-1.40
Single	-	-	-	-
Per capita income				
Up to ½ minimum wage	-	-	-	-
More than ½ up to 1 minimum wage	0.76	0.65-0.87	0.86	0.75-0.99
More than 1 to 2 minimum wage	0.57	0.48-0.67	0.71	0.60-0.84
More than 2 to 5 minimum wages	0.57	0.45-0.71	0.76	0.60-0.96
More than 5 minimum wages	0.44	0.32-0.59	0.61	0.45-0.83
Health condition				
Very good	-	-	-	-
Good	1.29	1.07-1.55	1.35	1.11-1.63
Regular	1.92	1.57-2.34	2.07	1.67-2.56
Bad	2.69	2.01-3.59	2.84	2.10-3.82
Too bad	2.79	1.86-4.19	3.01	1.99-4.57
Mental health problem				
No	-	-	-	-
Yes	2.04	1.78-2.34	1.90	1.66-2.18
Alcohol consumption				
I never drink	-	-	-	-
Less than once a month	1.41	1.17-1.71	1.26	1.05-1.53
One or more times a month	1.74	1.50-2.01	1.65	1.44-1.93

Source: National Health Survey. 2019.

chological, physical, or sexual violence in 2019. Within its scope, the PNS 2019 elucidates several issues and corroborates the findings of investigations of a strategic and operational nature in Brazil[4,7-12], although the final adjusted models were quite similar for all forms of violence, with the greatest differences being observed for sexual violence. We observed that urban life brings more risk (33%) than rural life, which is understandable because it is in the cities that people gather and where inequalities are concentrated[13,14]. In either of these two environments, women are more likely to experience aggression (+8.0%) than men, which is evidenced by the increased prevalence of physical, psychological, or sexual injury, which is amply attested in the national and international literature[15-18]. Men die much more from violence, while women suffer more from its effects[4,5]. Violence against women is structural, it manifests itself as a typical problem of patriarchy

Table 6. Crude and adjusted prevalence ratios (PR) of variables in the final model of the occurrence of sexual violence in the Brazilian adult population (≥18 years old), Brazil, 2019.

Variables	Crude PR	CI95%	Adjusted PR	CI95%
Region				
North	0.99	0.66-1.48	1.06	0.69-1.63
Northeast	1.07	0.75-1.54	1.10	0.76-1.60
Southeast	0.84	0.52-1.34	0.91	0.55-1.49
South	0.57	0.35-0.91	0.60	0.37-0.98
Midwest	-	-	-	-
Sex				
Male	-	-	-	-
Female	2.35	1.69-3.27	2.33	1.69-3.22
Age group				
18 to 29 years	8.26	4.91-13.89	5.64	2.89-11.00
30 to 39 years	3.15	1.81-5.48	2.55	1.30-5.00
40 to 49 years	4.81	2.32-9.97	3.90	1.77-8.57
50 to 59 years	1.98	1.07-3.65	1.74	0.89-3.78
60 or more	-	-	-	-
Marital status				
Married	0.22	0.15-0.33	0.33	0.22-0.61
Divorced. legally separated	0.84	0.54-1.31	1.15	0.64-2.06
Widower	0.21	0.11-0.39	0.50	0.21-1.15
Single	-	-	-	-
Health condition				
Very good	-	-	-	-
Good	1.31	0.85-2.02	1.36	0.86-2.13
Regular	1.73	1.15-2.59	1.72	1.12-2.64
Bad	2.52	1.36-4.68	2.46	1.32-4.62
Too bad	3.34	1.73-6.47	3.30	1.64-6.65
Mental health problem				
No	-	-	-	-
Yes	2.57	1.89-3.51	2.14	1.55-2.96
Alcohol consumption				
I never drink	-	-	-	-
Less than once a month	1.04	0.94-2.10	1.22	0.80-1.87
One or more times a month	1.66	1.17-2.37	1.69	1.15-2.49

Source: National Health Survey, 2019.

that prevails and is culturally reproduced in the world, despite the social movements to overcome it. Much of the violence against them occurs in relationships with intimate partners or ex-partners, and most victims are between 20 and 44 years old.

The quantification of interpersonal violence at the global level is a very difficult operation and it is difficult to compare the reality of the country with the reality of other regions through investigations of great magnitude, because although they may have the same scope, they do not always use the same variables. Here is an example of a study coordinated by Haagsma *et al.*[19], with 90 authors from the most different countries, using an integrative model that simultaneously estimated incidence, prevalence, and remission by age and sex, and pointed out, with data from 2013, that 973 million people had claimed to have experienced some type of injury that had led them to resort to health services. And 4.8 million people have died as a result. The prevalence of global interpersonal violence estimated by these authors was 8.3%. They point out that aggressions that cause injuries and require medical care had decreased by 31% between 1990 and 2003 in the group of countries studied. The rate of decline in days of life lost was significant for 22

types of aggression, including the most serious.

Malta *et al.*[7] led a survey in Brazil with the same methodology used by Haagsma *et al.*[19] and found, against all common sense, that here, too, deaths from violence, which were responsible for 134,931 deaths in 1990, dropped to 81,200, 22.8% less in 2015, with the main groups of causes being deaths and injuries due to homicides and transport accidents. Malta *et al.*[9] repeated the study with data from 1990 to 2019 on deaths of adolescents and young people and showed a reduction of 30.8% in deaths of girls and 6.2% of boys. Corroborating the 2019 PNAD data, there was an increase in mortality rates in the North and Northeast regions, and a significant reduction in the Southeast and South regions. There are also local and important studies in the same sense, such as the study by Cecílio *et al.*[11], carried out in São Paulo, and by Tauffer *et al.*[12], with data from Paraná.

Another issue recognized by experts is that the group most victimized by violence – both with deaths and injuries [4,5,7,8,20-22] – is the group of young people aged between 18 and 29, age group that the PNS 2019 indicated with a 158.0% prevalence of suffered damages. This fact is magnified by the percentages of increase in the prevalence for people of black skin color[22-25] and indigenous ethnicity[26], a differential accentuated by the consumption of alcohol, which, in addition to the violence that affects Brazilian society in general, suffers from a series of specific situations, such as sexism, racism, homophobia, and transphobia[4,5,22-26].

For the "married" category, the PNS 2019 found a statistically significant 31% lower prevalence of victimization by violence, which is confirmed by several authors, including Lucas *et al.*[27]. This long longitudinal study followed 24,000 married individuals for 15 years and found in this group more security, more satisfaction, and fewer health problems than among single, widowed, and unmarried individuals. The bibliography on the subject is extensive, however, in recent years, the gender issue has become increasingly complex and authors[28] distinguish a healthy marriage from an unhappy, abusive marriage.

A crucial point highlighted by the study is the association of victimization by some form of violence with very poor health status, mental health problems, and frequent consumption of alcohol. This data is not explained in the research, but it arouses curiosity of scholars for the effects of recursion between violent behavior and their reactions in the form of depression, mental suffering, alcoholism (which is often cause and effect), and other psychological problems[3-5,22-27].

As it is presented in an aggregated form, the data that shows the highest prevalence of an interpersonal violence that affects health above the national average (18/100,000) is from Sergipe (24.9%), Roraima (22.3%), and Bahia (21.8%) states, not allowing for a more in-depth analysis. However, studies such as the Atlas of Violence[9] have shown an increase in morbidity and mortality from violence in the Northeast and North regions of the country, consistently, in recent years.

We end this discussion by reporting an important limitation of this study and the PNS 2019 in relation to the topic in focus. In this version, for each type of violence, a set of questions that describe representative actions of its expressions, followed by inquiries about the author, the place, and the frequency was prepared. In a subsequent block, the author and the location of the most serious experienced violence was asked. And in the next block, the consequences of these events for health and the care received for the most severe cases. However, this last set of questions could not be used in the present study since there was no indication to which types of violence such data referred to.

Conclusions

It is worth praising the initiative of the IBGE associated with the Ministry of Health and Fiocruz, in the PNS 2019, to raise important questions about violence as part of the problems that affect the population's health. The module on "Violence", already dealt with in the PNS 2013, was expanded here in the PNS 2019, investigating separately the psychological, physical, and sexual expressions, as well as the need to use health services due to the most serious injuries.

It is clear from this study that in Brazil, in general, the family, community, institutional, and social environment is permeated by various types of interpersonal violence that affect individual and collective health and reduce the potential for a healthy growth and development. This fact was symbolized in a figure (18.3%) that means the set of what was stated by the interviewees in the survey. As mentioned in the discussion, the world estimate is 8.3%, that is, much lower.

An important conclusion of this study is that the data brought by the PNS 2019 fully converges with research carried out in the country on the subject, either with information from DATASUS

or with investigations of local or regional data. It also corroborates statements by international organizations, particularly the WHO and UNICEF, that also consider violence to be a preventable phenomenon on which action must be taken.

The strategic purpose of both the PNS 2019 and, in particular, this study, is to reinforce the accumulated knowledge and the urgent need to act with the instruments and strategies proposed since 2001 by the National Policy for the Reduction of Morbidity and Mortality from Accidents and Violence.

Collaborations

MCS Minayo contributed to the conception and design of the article, interpretation of data and writing of the manuscript. LW Pinto and CMFP Silva contributed to the conception and design of the article, the analysis and interpretation of data and the writing of the article. All authors approved the final version to be published.

References

1. Fundação Instituto Brasileiro de Geografia e Estatística (IBGE). *Pesquisa nacional de saúde: 2019: acidentes, violências, doenças transmissíveis, atividade sexual, características do trabalho e apoio social*. Rio de Janeiro: IBGE; 2020.
2. Brasil. Ministério da Saúde (MS). Política *Nacional de Redução da Morbimortalidade por Acidentes e Violências.* Brasília: MS; 2001.
3. World Health Organization (WHO). *World report on violence and health.* Geneva: WHO; 2002.
4. Minayo MCS, Assis SG, organizadores. *Novas e velhas faces da violência no século XXI*: *Visão da literatura brasileira do campo da saúde. Rio de Janeiro: Editora Fiocruz; 2017*.
5. Minayo MCS, Franco S. Violence and Health. *Oxford Encyclop Glob Public Health* 2020; 1-23. DOI: 10.1093/acrefore/9780190632366.013.32.
6. Stopa SR, Szwarcwald CL, Oliveira MM, Gouvea ECDP, Vieira MLFP, Freitas MPS, Sardinha LMV, Macário EM. Pesquisa Nacional de Saúde 2019: histórico, métodos e perspectivas. *Epidemiol Serv Saude* 2020; 29(5):e2020315.
7. Malta DC, Minayo MCS, Soares Filho, AM, Silva MMA, Montenegro MMS, Ladeira RM, Morais Neto OL, Melo AP, Mooney M, Naghavi M. Mortalidade e anos de vida perdidos por violências interpessoais e autoprovocadas no Brasil e Estados: análise das estimativas do Estudo Carga Global de Doença, 1990 e 2015. *Rev Bras Epidemiol* 2017; 20(Supl. 1):142-156.
8. Cerqueira D, Ferreira H, Bueno S, Alves PP, Lima RS, Marques D, Silva FAB, Lunelli IC, Rodrigues RI, Lins GOA, Armstrong KC, Lira P, Coelho D, Barros B, Sobral I, Pacheco D, Pimentel A. *Atlas da violência*. São Paulo: Fórum Brasileiro de Segurança Pública; 2021.

9. Malta DC, Minayo MCS, Cardoso LSM, Veloso, GA, Teixeira, RA, Pinto, IV, Naghavi M. Mortalidade de adolescentes e adultos jovens brasileiros entre 1990 e 2019: uma análise do estudo Carga Global de Doença. *Cien Saude Colet* 2021; 26(9):4069-4086.
10. Mascarenhas MD, Sinimbu RB, Malta, DC; Silva MMA, Santos AF, Veira MLFP, Szwarcwald CL. Violência cometida por pessoa conhecida - Brasil, 2013. *Cien Saude Colet* 2017; 22(11):3763-3772.
11. Cecilio LPP, Garbin CAS, Rovida, TAS, Queiróz, APDG, Garbin AJI. Violência interpessoal: estudo descritivo dos casos não fatais atendidos em uma unidade de urgência e emergência referência de sete municípios do estado de São Paulo, Brasil, 2008 a 2010. *Epidemiol Serv Saude*, 2012; 21(2):293-304.
12. Tauffer J, Zack BT, Berticelli MC, Kássim MJN, Carmello M, Maraschin MS. Perfil dos casos de violência interpessoal e autoprovocada atendidos em um hospital público do Paraná, 2014 a 2018. *J Epidemiol Infect Control* 2020; 10(1):2-7.
13. Campello T, Gentili P, Rodrigues M, Hoewell GR. Faces da desigualdade no Brasil: um olhar sobre os que ficam para trás. *Saude Debate* 2018; 42(Supl. 3):54-66.
14. Pitombeira DF, Oliveira, LC. Pobreza e desigualdades sociais: tensões entre direitos, austeridade e suas implicações na atenção primária. *Cien Saude Colet* 2020; 25(5):1699-1708.
15. Stith SM, Smith DB, Penn CE, Ward DB, DariTritt D. Intimate partner physical abuse perpetration and victimization risk factors: a meta-analytic review. *Aggression Violent Behav* 2004; 10(1):65-98.
16. Garcia-Moreno C, Jansen HAFM, Ellsberg M, Heise L, Watts C. *WHO multi-country study on women's health and domestic violence against women*. Geneva: WHO; 2005.
17. World Health Organization (WHO). *Preventing intimate partner and sexual violence against women: Taking action and generating evidence*. Geneva: WHO; 2010.
18. United Nations Population Fund. *Gender based violence*. UNFPA; 2014.
19. Haagsma JA, Graetz N, Bolliger I, Naghavi M, Higashi H, Mullany E, Abera SF, Abraham JP, Adofo K, Alsharif U, Ameh EA, Ammar W, Antonio CA, Barrero LH, Bekele T, Bose D, Brazinova A, Catalá-López F, Dandona L, Dandona R, Dargan PI, De Leo D, Degenhardt L, Derrett S, Dharmaratne SD, Driscoll TR, Duan L, Petrovich Ermakov S, Farzadfar F, Feigin VL, Franklin RC, Gabbe B, Gosselin RA, Hafezi-Nejad N, Hamadeh RR, Hijar M, Hu G, Jayaraman SP, Jiang G, Khader YS, Khan EA, Krishnaswami S, Kulkarni C, Lecky FE, Leung R, Lunevicius R, Lyons RA, Majdan M, Mason-Jones AJ, Matzopoulos R, Meaney PA, Mekonnen W, Miller TR, Mock CN, Norman RE, Orozco R, Polinder S, Pourmalek F, Rahimi-Movaghar V, Refaat A, Rojas -Rueda D, Roy N, Schwebel DC, Shaheen A, Shahraz S, Skirbekk V, Søreide K, Soshnikov S, Stein DJ, Sykes BL, Tabb KM, Temesgen AM, Tenkorang EY, Theadom AM, Tran BX, Vasankari TJ, Vavilala MS, Vlassov VV, Woldeyohannes SM, Yip P, Yonemoto N, Younis MZ, Yu C, Murray CJ, Vos T. The global burden of injury: Incidence, mortality, disability-adjusted life years and time trends from the Global Burden of Disease study 2013. *Inj Prev* 2016; 22(1):3-18.
20. Rosario M, Salzinger S, Feldman RS, Ng-Mak DS. Community violence exposure and delinquent behaviors among youth. *J Community Psychol* 2003; 31(5):489-512.
21. Ribeiro AP, Souza ER, Sousa CAM. Lesões provocadas por armas de fogo atendidas em serviços de urgência e emergência brasileiros. *Cien Saude Colet* 2017; 22(9):2851-2860.
22. Minayo MCS, Mariz RSA. Perfil dos autores de letalidade violenta no município do Rio de Janeiro. *Cien Saude Colet* 2021; 26(Supl. 3):5023-5032.
23. Schwarcz LM, Gomes FS, editores. *Dicionário da escravidão e liberdade: 50 textos críticos*. São Paulo: Companhia das Letras; 2018.
24. Almeida S. *O que é racismo estrutural?* Belo Horizonte: Letramento; 2018.
25. Andrade CB, Assis SG. Assédio moral no trabalho, gênero, raça e poder: revisão de literatura. *Rev Bras Saude Ocup* 2018; 43:e11.
26. Conselho Indigenista Missionário (CIMI). *Violência contra os povos indígenas no Brasil – Relatório 2016* [Internet]. [acessado 2020 mar 18]. Disponível em: https://www.cimi.org.br/pub/relatorio/Relatorio-violencia-contra-povos-indigenas_2016-Cimi.pdf.
27. Lucas RE, Clarck AE, Yannis G, Ed D. Reexamining Adaptation, and the Set Point Model of Happiness: reactions to changes in marital status. *J Pers Soc Psychol* 2003; 84(3):527-539.
28. Hughes EM, Waite LJ. Marital biography and health in mid-life. *J Health Soc Behav* 2009; 50(3):344-358.

Article submitted 05/02/2022
Approved 18/05/2022
Final version submitted 20/05/2022

Chief editors: Romeu Gomes, Antônio Augusto Moura da Silva