

# MODELING OF CRIMES MOTIVATED BY HOMOPHOBIA THAT OCCURRED IN THE CONTEXT OF THE COVID-19 PANDEMIC IN THE STATE OF PARÁ, BRAZIL

doi

https://doi.org/10.56238/arev7n4-296

**Submitted on:** 03/29/2025 **Publication date:** 04/29/2025

Marcos Fabricio da Costa Mattos<sup>1</sup>, Adrilayne dos Reis Araújo<sup>2</sup> and Gelilza Salazar Costa<sup>3</sup>

#### **ABSTRACT**

It was observed that there is little debate about violence against LGBTQIAP+ people. Thus, the study is necessary for a better understanding, proposing to investigate and expand the discussions about crime in the state of Pará during the Covid-19 pandemic period with a focus on the LGBTQIAP+ population. An analysis of scenarios of complaints received by public security agencies will be addressed to identify the prevalence, motivations, forms and factors in relation to the violence that occurred and the spatial and temporal distribution of these events that involves gender relations and sexual diversity in their multiple daily lives, in addition to drawing a profile related to the complainants and aggressors. Thus, the objective is to improve the management of knowledge about homophobia. Therefore, it is an applied study with a quantitative characteristic of the descriptive and exploratory type, using the descriptive statistical technique and logistic regression to demonstrate violence against LGBTQIAP+ people. The information used was obtained from the Assistant Secretary of Intelligence and Criminal Analysis, linked to the State Secretariat of Public Security and Social Defense of Pará. With the methodology used, it was intended to verify whether or not during the pandemic period there was an increase in cases of violence motivated by homophobia. In addition, it is expected that with the results found, through the indicators of public security and social defense, they can contribute to a better understanding, in addition to proposing the creation and implementation of strategic initiatives in the sense of continuous improvement of social prevention and combating violence and crime against this population in a time horizon and effective future public policies.

**Keywords:** Modeling. Descriptive Statistics. LGBTQIAP+. Pandemic Period.

<sup>1</sup>Master in Business Administration

Federal University of Pará

E-mail: marcos.mattos@icen.ufpa.br

ORCID: 0009-0008-0142-694X

<sup>2</sup>Master in Statistics

Federal University of Pará E-mail: adrilayne@ufpa.br

ORCID: 0000-0002-8020-6038

<sup>3</sup>Graduated in Statistics Federal University of Pará

E-mail: gelilza@gmail.com

Lattes: http://lattes.cnpq.br/7218869042111299



### INTRODUCTION

It cannot be denied that Brazil has made great advances in citizenship and the rights of the LGBTQIAP+ population, especially in the legislature, however, even after the effectiveness of PLC 122/06, homophobic violence in the country is worrying. Brazil is still one of the countries that kills the most LGBTQIAP+ in the world! Every 16 hours, a person is murdered because of their sexual orientation or gender identity. At least 8,027 lesbian, gay, bisexual, transvestite, transsexual, queer, intersex and pansexual (LGBTQIAP+) people were killed in hate crimes motivated by homophobia between 1963 and 2018, according to the Gay Group of Bahia (GGB), which for years has been compiling data that appears in the media and in family reports. And it doesn't stop there: Brazil is also the absolute champion of deaths of trans people on the planet, being responsible for almost 50% of murders worldwide, according to a survey by the NGO Transrespect Europe in its report (BALZER; LAGATA; BERREDO, 2016) and, according to the Brazilian Association of Gays, Bisexuals, Transvestites and Transsexuals (ABGLT), 70% of Brazilian LGBTQIAP+ students have already suffered discrimination in schools. And, it should be noted that these data, however, do not represent the totality, since there is no official data with the focus on gender identity and sexual orientation, by official government institutions, since the police reports are registered as racism.

As can be seen, homophobia is a phenomenon present not only in Brazil, but internationally and, with the event of the Covid-19 Pandemic in the years 2020 to 2021 in which there was social isolation, some worrying indices emerged regarding this type of violence. The movement created by the WHO entitled "Stay Home" that made a request to the population to stay at home, with the purpose of preventing the spread of Covid-19 caused, in addition to economic instabilities, an increase in violence due to the following aspects: a) assiduous presence closer to the aggressor in the same environment as the victim; b) weakening of the relationship with social support networks and institutions for LGBTQIAP+ people due to the decrease in the search for help; c) perpetuation of violence and the discouragement of LGBTQIAP+ people from taking action against the perpetrator.

In this regard, it is necessary to understand the dynamics of crimes committed against LGBTQIAP+ people in the state of Pará, in the period from 2020 to 2021, and data from 2022 were included for post-pandemic comparison, based on the use of data contained in the SIAC/SEGUP-PA databases, from their records of police occurrences. The analysis of the records will help to understand the current panorama of homophobic



violence and its characterization, its causes, the relationships between perpetrator and victim, among other relevant aspects, an essential tool for the planning and execution of preventive actions, with the development of policies that can curb such practice, thus justifying the importance and relevance of this research.

Thus, the present study intends to make theoretical and investigative reflections on violence motivated by homophobia, seeking to verify the profile and incidence of violence against LGBTQIAP+ people in the state of Pará, in the context of the Covid-19 Pandemic, thus mapping the indicators of the phenomenon.

## **METHODOLOGY**

An analysis of scenarios was carried out regarding the complaints received by the civil police stations in order to identify the prevalence, motivations, forms and factors in relation to the violence that occurred and the spatial and temporal distribution of these events that involves gender relations and sexual diversity in their multiple daily lives, in addition to drawing a profile related to the complainants and aggressors. Therefore, it is an applied study of quantitative characteristics of the descriptive and exploratory type, using the descriptive statistical technique, modeling and logistic regression to demonstrate violence against LGBTQIAP+ people. The information used was obtained, in July 2023, from the Deputy Secretariat for Intelligence and Criminal Analysis, linked to the State Secretariat for Public Security and Social Defense of Pará. With the methodology used, it was intended to verify whether or not during the pandemic period there was an increase in cases of violence motivated by homophobia.

This is an applied study with a quantitative, descriptive nature and an exploratory approach. The data refer to crimes of violence against LGBTQIAP+ people in the state of Pará, located in the northern region of Brazil, with a territorial area of 1,059,466 km² and a population of 8,442,962 inhabitants (IBGE, 2023), and the information was broken from January 2020 to December 2022.

The data used are of a secondary nature and were made available, in July 2023, by the Assistant Secretariat for Intelligence and Criminal Analysis (SIAC) linked to the Secretariat of State and Public Security and Social Defense of Pará (SEGUP-PA) which is responsible for organizing criminal statistics in the state of Pará.

With the data base, descriptive analysis of the data was performed using frequency and percentage tables, as well as graphs and synthesis measures (BUSSAB; MORETTIN,



2013), with the objective of characterizing cases of violence against LGBTQIAP+ people. Subsequently, the data were exported to Minitab 19 software to develop the multiple binary logistic regression model, considering the response variable "Presumable Cause" of the crime (Yi), coded at 1 if the crime was caused by Homophobia and 0 if the crime was caused by another reason. Considering the predictor variables: Place of occurrence (coded at 1 if the crime occurred in a private residence and at 0 if the crime occurred in another location); Victim's gender (coded at 1 if the victim is female and at 0 if the victim is male); Sex of the aggressor (coded at 1 if the aggressor is male and at 0 if the aggressor is female); and Year of the fact (coded in 1 if the crime occurred in 2021 and in 0 if the crime occurred in 2022). Simple logistic regression explains the relationship, based on a model, between a qualitative response variable and an independent variable, called a covariate. In the case of only one independent variable, we have Simple Binary Logistic Regression. Thus, the model is given by  $X_i$ 

$$E(X_i) = \frac{exp (\beta_0 + \beta_1 X_i)}{1 + exp (\beta_0 + \beta_1 X_i)}$$
(1)

where  $\beta_0$  and  $\beta_1$  are the regression coefficients to be estimated by the maximum likelihood method and  $X_i$  is the independent variable, where i=1.2,...,n. Multiple Logistic Regression, which is an extension of model (1), is composed of two or more independent variables ( $X_1, X_2, ..., X_p$ ) and, by their respective regression coefficients  $\beta_1, ..., \beta_p$ . Therefore, we have  $\beta_1 \times X_1 = \beta_1 \times X_2 = \beta_1 \times X_1 = \beta_1 \times X_1 = \beta_1 \times X_2 = \beta_1 \times X_1 = \beta_1$ 

$$E(X_i) = \pi(X_i) = \frac{exp(\beta^t X)}{1 + exp(\beta^t X)}.$$
 (2)

Thus, the independent variable is obtained where the term is the random error of the model and represents the difference between the observed value of and the conditioned expected value of the data, being a dichotomous variable, assuming only the values 0 or 1. The values of the parameters are estimated using the maximum likelihood method. The odds ratio is used for the analysis of binary data, which is the ratio between the chance of an event occurring in one group and the chance of occurring in another group. Where the  $Y_iY_i = E(X_i) + \varepsilon_i, \varepsilon_i Y_i Y_i X_i Y_i \beta_0, \beta_1, \dots, \beta_n chance$  is the probability of occurrence of the event by the probability of the non-occurrence of the same event (AGRESTI, 2003). In this way, the odds ratio is given by:



ISSN: 2358-2472

$$chance_{i} = \frac{P(X_{i})}{P(X_{i})} = \frac{\pi(X_{i})}{1 - \pi(X_{i})} \text{ and.} RC = \frac{\frac{\pi(X_{i}=1)}{1 - \pi(X_{i}=1)}}{\frac{\pi(X_{i}=0)}{1 - \pi(X_{i}=0)}}$$
(3)

Next, an analysis of the results was carried out, in order to verify whether or not there is a prevalence of violence against LGBTQIAP+ people in the family environment in relation to other spaces, in addition to the influence of other variables such as the year of the fact, and the profile of the aggressors and victims.

### **RESULTS**

It was identified that most of the homophobic crimes that occurred in the pandemic period, especially in 2021, showed more chances of occurrences when compared to the years 2020 and 2022 (post-pandemic). Most of them occurred in private residences, residential condominiums (34.28%), with emphasis on the crime of injury in the 3 years studied. From the multiple logistic regression, it was possible to evidence that in the pandemic year 2021, there was also a prevalence of violence against LGBTQIAP+ people, outside the residence.

## **DISCUSSION**

According to Table 1, of the total number of records that occurred in 2020 (33), 2021 (105), and 2022 (90), the most frequent crimes against LGBTQIAP+ people were: Injury in 2020 (33.34%), 2021 (47.63%), and in 2022 (25.57%). Most crimes occurred in the afternoon in 2020 (39.40%) and in 2021 (37.14%), while in 2022 most occurred at night (33.33%). Regarding the day of the week, Sundays stand out, in 2020 (21.21%), in 2021 (20.00%) and in 2022 (20.00%).

Table 1: Quantity and Percentage of Crimes against LGBTQIAP+ people in the municipality of Belém do Pará, in the Period from 2020 to 2022, by Type of Crime, Shift and Day of the Week.

Variable	Cotogony	2020		2021		2022	
variable	Category	N (33)	%	N (105)	%	N (90)	%
	Injury	11	33,34	50	47,63	23	25,57
Type of Crime	Bodily injury	6	18,18	12	11,43	16	17,78
	Menace	10	30,3	12	11,43	9	10
	Practice Discrimination/Prejudice	-	-	21	20	7	7,78
	Racial slur	-	-	-	-	22	24,44
	Defamation	4	12,12	6	5,71	3	3,33
	Other	2	6,06	4	3,8	10	10,1
Shift	Dawn	1	3,03	7	6,67	12	13,34
	Morning	8	24,24	27	25,71	26	28,89
	Afternoon	13	39,4	39	37,14	22	24,44



ISSN: 2358-2472

	Night	11	33,33	32	30,48	30	33,33
Day of the Week	Sunday	7	21,21	21	20	18	20
	Second	4	12,12	14	13,33	16	17,78
	Tuesday	2	6,07	21	20	11	12,22
	Fourth	4	12,12	17	16,19	9	10
	Fifth	4	12,12	14	13,33	8	8,89
	Friday	7	21,21	7	6,67	10	11,11
	Saturday	5	15,15	11	10,48	18	20

Source: SIAC-SEGUP/PA, JULY/2023

Table 2 shows that most of the crimes that occurred in 2021 were in private residence, residential condominium (34.28%). Most victims were female in 2020 (60.61%), in 2021 (61.90%) and in 2022 (55.56%). Regarding the sex of the aggressor, in 156 crimes it was not possible to obtain information on the sex of the perpetrator, and among the 72 crimes analyzed, 13 (100.00%) were for a male aggressor in 2020, 21 (67.74%) crimes in 2021 and 21 in 2022 (75.00%).

Table 2: Quantity and Percentage of Crimes against LGBTQIAP+ people in the municipality of Belém do Pará, in the Period from 2020 to 2022, by Place of Occurrence, Sex of the victim and Sex of the aggressor.

.,	Category		2020		2021		2022	
Variable			%	n	%	n	%	
Place of Occurrence	Public road, Public place	16	48,49	29	27,62	30	33,34	
	Private residence, Residential condominium	12	36,36	36	34,28	26	28,89	
	Other	5	15,15	40	38,1	34	37,77	
Victim's Gender	Female	20	60,61	40	38,1	40	44,44	
	Male	13	39,39	65	61,9	50	55,56	
Sex of the	Female	-	-	10	32,26	7	25	
Aggressor	Male	13	100	21	67,74	21	75	

Source: SIAC-SEGUP/PA, JULY/2023

Table 3 presents the results of the multiple logistic regression of crimes against LGBTQIAP+ people in the municipality of Belém do Pará, where the estimates of the adjusted parameters of the model, given by 1 (Homophobia), according to the predictor variables (X\_i) were obtained.

Table 3: Estimates of the Parameters of the Multiple Logistic Regression Model for Crimes against LGBTQIAP+ People in the municipality of Belém do Pará, in the Period from 2020 to 2022.

Predictor	Category	Coefficient	Standard	p	Odds Ratio	95% CI	
Variable			Error			READ	LS
Constant	-	-0,832	0,375	0,018	-	-	-
Place of	Private Residence	-0,152	0,294	0,605	0,86	0,48	1,53
Occurrence	Other Locations*	-	-	-	-	-	-
Victim's Gender	Female	-0,301	0,328	0,359	0,74	0,39	1,41
	Male*	-	-	-	-	-	-



ISSN: 2358-2472

Sex of the	Male	0,321	0,348	0,356	1,38	0,70	2,73
Aggressor	Female*	-	-	-	-	-	-
Year of the Fact	2021	0,968	0,293	0,001	2,63	1,48	4,67
	2022*	-	-	-	-	-	-

Note: \*Reference Category; p ≤ 0.05; LI: Lower Limit, LS: Upper Limit.

#### CONCLUSION

This work identified that most of the crimes due to Homophobia that occurred in 2021 (pandemic period) showed about 3 times more chance of occurrences when compared to the years 2020 and 2022, the period before and after the pandemic. Most of them occurred in private residence, residential condominium (34.28%), with emphasis on the crime Injury in the 3 years studied. Regarding the gender of the victim and the aggressor, the most prominent was male gender in 2021 and 2022. From multiple logistic regression, it was possible to evidence that in the pandemic year in 2021, there was a prevalence of violence against LGBTQIAP+ people, possibly motivated by the assiduous and closer presence of the aggressor in the same environment as the victim, where they were pointed out in this study. Thus, the importance and need to re-discuss and develop new strategies in the political, social and legal panorama in Brazilian government institutions for the promotion of citizenship and the guarantee of the rights of this population is emphasized.

#### **ACKNOWLEDGMENTS**

I would like to thank the Integrated Center for Citizen Attention (CIAC) and the State Secretariat of Public Security and Social Defense of the State of Pará (SEGUP-PA) for their institutional support and contributions that made the development of this research possible. To Professor Adrilayne, I express my gratitude for the technical guidance and academic support provided throughout this work. I also extend my thanks to the Federal University of Pará and my classmates for the collaborations and reflections shared during the process of preparing this article.



#### **REFERENCES**

- 1. Agresti, A. (2003). Categorical data analysis (2nd ed.). John Wiley and Sons.
- 2. Balzer, C., Lagata, C., & Berredo, L. (2016). TMM annual report 2016. Transgender Europe. http://www.suarakita.org/wpcontent/uploads/2016/11/TvT-PS-Vol14-2016.pdf
- 3. Bussab, W., & Morettin, P. (2013). Estatística básica (8th ed.). Saraiva.
- 4. IBGE. (2023). Panorama dos municípios brasileiros. https://cidades.ibge.gov.br/brasil/pa/panorama
- 5. ANTRA Associação Nacional de Travestis e Transexuais. (2022). Dossiê assassinatos e violências contra travestis e transexuais brasileiras em 2021. https://antrabrasil.files.wordpress.com/2022/01/dossieantra2022-web.pdf
- OMS Organização Mundial da Saúde. (2020a). Doença por coronavírus (Covid-2019): Relato de situação – 151. https://www.who.int/docs/defaultsource/coronaviruse/situation-reports/20200619-covid-19-sitrep-151.pdf?sfvrsn=8b23b56e\_2
- 7. Mott, L. (2000). Assassinato de homossexuais: Manual de coleta de informações, sistematização e imobilização política contra crimes homofóbicos. Grupo Gay da Bahia.
- ABGLT Associação Brasileira de Lésbicas, Gays, Bissexuais, Travestis, Transexuais e Intersexos. (2016). Pesquisa nacional sobre o ambiente educacional no Brasil 2016: As experiências de adolescentes e jovens LGBT em nossos ambientes educacionais. http://static.congressoemfoco.uol.com.br/2016/08/IAE-Brasil-Web-3-1.pdf