Cogitare Enfermagem

ORIGINAL ARTICLE

SPATIAL DISTRIBUTION OF VIOLENCE AGAINST OLDER ADULTS BEFORE AND DURING THE COVID-19 PANDEMIC

HIGHLIGHTS

1. Violent places have become more violent amid the pandemic
2 - There is a correlation between COVID-19 lethality and violence
3 - Violence against older adults is not randomly distributed across space

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ABSTRACT

Objective: to analyze the spatial distribution of violence against older adults in the Brazilian South region before and in the first year of the COVID-19 pandemic. **Method:** an ecological study that analyzed reports of violence against older adults between 2019 and 2020, in Southern Brazil. Local empirical Bayesian rates, Moran's Local Autocorrelation Index and Getis Ord Gi analysis were calculated. **Results:** there was a reduction in the smoothed rate of violence against older adults. The high-high and hot-spot cities in 2019 became more violent in 2020; and cities with low prevalence became less violent in 2020. The highest COVID-19 fatality rates were also in those cities with the highest violence rates. **Conclusion:** the data reinforces the complexity of violence and its worsening due to the pandemic. In addition, they contribute to decision-making in Nursing, highlighting the need to encourage new research studies on this theme.

DESCRIPTORS: Violence; Older Adult Abuse; Spatial Analysis; COVID-19; Public Health Nursing.

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INTRODUCTION

Population aging was a demographic reality only in developed countries, but it is currently present in the populations of developing countries[1]. The global population of people aged over 60 is expected to increase by 24% by 2050[1]. In Brazil, it was estimated that the country would reach the sixth-largest aged population in the world by 2025; however, the impact of the COVID-19 pandemic, a disease caused by SARS-CoV-2 (*Severe Acute Respiratory Syndrome Coronavirus 2*), exerted a significant impact on life expectancy in the country, resulting in a decline of 1.3 years in 2020, a mortality rate that was unprecedented since 2014. However, Brazil continues to have an increasingly aged population[2].

The Brazilian population aging poses the challenge of ensuring aging with quality and dignity, which are aspects included in political agendas for the development of social movements, human rights and health. Violence Against Older Adults (VAOA) is an example of the weakness of public policies for this population group, which has shown high prevalence and increased severity of its consequences in the lives of those affected[3].

VAOA is defined as a single or repeated act, occurring in any relationship in which there is an expectation of trust, that causes harm or suffering to an older adult. VAOA can be physical, sexual, psychological, emotional or financial, and can also include abandonment and/or neglect, which leads to a serious loss of dignity and respect[4].

It is estimated that, 15.7% of the older adults worldwide have suffered some form of violence[5]. In 2017, the Ministry of Human Rights recorded more than 33,000 VAOA complaints in Brazil A study carried out in 524 Brazilian cities revealed that 78.8% of the violence cases took place at the homes, and 53.6% reported previous experience with violence[3].

Intrafamily VAOA has particularities that deserve a careful approach, as victims have feelings of fear, guilt, shame and a sense of helplessness, which combined with the fear of verbalizing information, culminate in a state of deep sadness and loneliness[6].

In the COVID-19 pandemic, during the months of highest social isolation rates in 2020, there was a significant increase in VAOA in Brazil, which rose from three thousand cases in March to 17,000 in May, corresponding to a 567% increase in the period[7].

Social distancing, which is fundamental to reducing SARCoV-2 transmission, has also potentiated the phenomenon of family violence in its different forms, in addition to impacting and generating serious losses in the world economy with drastic changes in everyday life in society[7]. The ability to go out, interact with peers and participate in outdoor activities is important for building a social environment that counteracts isolation and mistreatment. Deprivation of social interaction and physical contact with friends makes it easier for abusers to control, manipulate and mistreat older adults[8].

The current Brazilian scenario, in which the VAOA epidemic was experienced simultaneously with the COVID-19 pandemic, shows the need to study these phenomena in order to support decision-making relationships to face these problems. The use of spatial analysis may contribute to better visualizing and understanding the VAOA behavior in the Brazilian South region, providing support for the qualification of public social and health policies.

In addition to that, this study meets the assumptions of Sustainable Development Goal 16 (SDG), from the 2030 Agenda of the United Nations (UN), which focuses on peace, justice and effective institutions. This SDG includes broad and integrated action in society's sensitive areas, such as combating violence and all criminal practices that violate human rights.

Given the above, the objective of this article is to analyze the spatial distribution of

violence against older adults in the Brazilian South region, both before and in the first year of the COVID-19 pandemic.

METHOD

This is an ecological and analytical study with a quantitative approach, carried out with secondary data from the Brazilian South region. The study was guided by the *Strengthening the Reporting of Observational Studies in Epidemiology* (STROBE) tool[9].

To establish the study population, all notifications of adults over the age of 60 who have experienced violence, irrespective of the type, and who live in all 1,191 municipalities from the three states comprising the Brazilian South region were taken into account. These municipalities were identified as Paraná (399 municipalities), Santa Catarina (295 municipalities), and Rio Grande do Sul (497 municipalities) in the Notifiable Diseases Information System (*Sistema de Informação de Agravos de Notificação*, SINAN) carried out from January 1st, 2019 to December 31st, 2020. Notifications of foreign people and those that had problems filling out the age field were removed.

Population estimates by municipality and age group prepared by the Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística*, IBGE), present on the Informatics Department of the Unified Health System (DATASUS) website were used to calculate the prevalence rate. As population selection method, only the resident population of each municipality aged 60 or over was included.

The outcome variable was notification of violence against older adults and the violence rate prevalence calculated based on the notifications ratio and the resident population. In addition to that, the following were selected as independent variables for the spatial analysis: mean monthly household income; proportion of older adults living in relatives' homes; illiteracy rate; proportion of aged women; and COVID-19 lethality[10]. For descriptive analysis, the variables of socioeconomic characteristics (gender, race/skin color, marital status and schooling) and occurrence of violence (place of occurrence, type of violence and aggressor) were evaluated.

The data were tabulated in electronic spreadsheets and exported to the R software, version 4.1.1, in which the variables of interest were processed. Simple statistical analysis was performed, describing absolute and relative frequencies. Pearson's Chi-square test was performed with Yates correction, or Fisher's Exact test and Student's t-test or Mann-Whitney test, as necessary, to estimate the p-value.

Subsequently, the data were grouped according to the number of notifications per municipality, relating population information and social and health indicators based on the municipality code. The spatial distribution of violence incidence against older adults, according to the municipalities in the Brazilian South region, was carried out for 2019 and 2020 to compare possible differences between the year in which there was no pandemic in Brazil (2019) and the year when the pandemic began (2020).

The prevalence rate was constructed based on the ratio of reported numbers of violence cases by the resident aged population of the same location and year, multiplied by 100,000. The queen-type local empirical Bayesian spatial distribution methodology was used to smooth the rates. The Moran's Global Autocorrelation Index (Moran's I), which indicates the spatial dependence of the problem, and the Moran's Local Autocorrelation Index (LISA) was analyzed, which spatially shows the clusters of importance for the event under study. A Getis Ord Gi* analysis was carried out to complement LISA, as well as Moran's bivariate analysis, which correlates social indicators with the variable of interest.

To interpret Moran's bivariate analysis, Moran's I Bivariate, z-score and p-value were

estimated. Thus, positive Bivariate Moran's I values indicate spatial correlation between the variables, with z-score and p-value indicating significance and strength of the association. It is noted that, as this was a univariate analysis, there was no model adjustment with confounders, but a multicollinearity analysis was performed between the explanatory variables.

The analyses were carried out using the GeoDa software, version 1.18, and the maps were prepared using the QGIS software, version 3.10.

The database with all VAOA notifications was obtained by request from the Access to Information Law website (Protocol No. 4247813). This law came into force throughout the national territory in 2012 and regulates the right of access to public information for any citizen[11].

RESULTS

In the period analyzed, 7,849 notifications of violence against older adults were recorded in the Brazilian South Region: 4,364 in 2019 (rate of 90.44 VAOA notifications per 100,000 older adults) and 3,485 in 2020 (69.42/100,000 older adults).

Between 2019 and 2020, there was little variation between the socioeconomic characteristics of the victims and violence itself. Only schooling and place of occurrence showed statistical significance in the comparison of both years, as described in Table 1.

Table 1 - Socioeconomic characteristics and occurrence of violence against older adults (n=7,849) in the Brazilian South region in 2019 and 2020, Maringá, Paraná, Brazil, 2022

Variables	2019		2020		p-value*
	n	%	n	%	
Gender					0.4816
Male	1,638	37.53	1,336	38.34	
Female	2,726	62.47	2,149	61.66	
Race/Skin color					0.1663
White	3,336	76.44	2,637	75.67	
Black/Brown	726	16.64	603	17.3	
Asian	23	0.53	14	0.4	
Indigenous	10	0.23	17	0.49	
Unknown	269	6.16	214	6.14	
Schooling					**0.0078**
No schooling	315	7.22	184	5.28	
Elementary School I	1240	28.41	947	27.17	
Elementary School II	799	18.31	631	18.11	
High School	315	7.22	288	8.26	
Higher Education	122	2.8	88	2.53	
Unknown	1,573	36.04	1,347	38.65	
Place of Occurrence					**0.0134‡**

Home	3,477	79.67	2,808	80.57	
Collective Housing	90	2.06	70	2.01	
School	9	0.21	1	0.03	
Place of Sports Practice	5	0.11	2	0.06	
Bar or similar	65	1.49	39	1.12	
Public road	286	6.55	206	5.91	
Shops/Services	89	2.04	41	1.18	
Others	140	3.21	118	3.39	
Unknown	203	4.65	200	5.74	
Type of Violence[§]					
Physical	2,281	52.27	1,816	52.11	0.7996
Psychological	1,200	27.5	1,011	29.01	0.0907
Sexual	105	2.41	99	2.84	0.2308
Financial	353	8.09	295	8.46	0.4859
Neglect	1,411	32.33	1087	31.19	0.4579
Aggressor[§]					
Spouse	611	14	457	13.11	0.4565
Son	1780	40.79	1416	40.63	0.579
Unknown	390	8.94	269	7.72	0.1058
Known	341	7.81	276	7.92	0.7024
Caregiver	143	3.28	124	3.56	0.4299

[*]p-value estimated by Pearson's Chi-Square Test; [†]Mann-Whitney test; [‡]Fisher's Exact Test; [§]Occurrences reported as "No" or "Unknown" were hidden.

Source: Information System for Notifiable Diseases (*Sistema de Informação de Agravos de Notificação*, SINAN).

Figure 1 shows the distribution of smoothed rates corresponding to notifications of violence against older adults in municipalities from southern Brazil. In 2019, the city with the highest prevalence was Novo Cabrais, in Rio Grande do Sul, with a rate of 1,482.02/100,000 older adults, followed by Vespasiano Correa (1,385.04/100,000 older adults) and Canudos do Vale (1,090/100,000 older adults), also municipalities from Rio Grande do Sul (Figure 1A). In 2020, Araucária, in Paraná, had the highest prevalence of violence, 837.72/100,000 older adults, followed by Dona Francisca, in Rio Grande do Sul, and Cambé, also in Paraná, with rates of 629.82/100,000 and 563.95/100,000 older adults, respectively (Figure 1B).

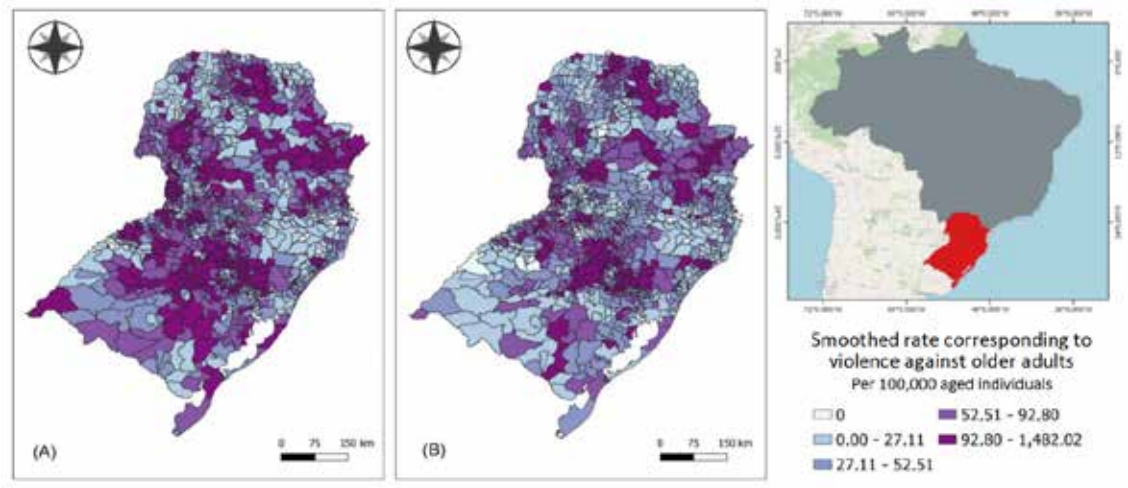

Figure 1 - Smoothed distribution of the notification rates for violence against older adults in the Brazilian South Region in 2019 (A) and 2020 (B), Maringá, Paraná, Brazil, 2022
Source: The authors (2022).

Moran's autocorrelation statistic indicates spatial dependence in both years analyzed, with an increase in the index in 2020 when compared to 2019, as shown in Table 2. The increase in Moran's I indicates greater concentration of violence reports, generating more defined spatial clusters.

Table 2 - Moran's I corresponding to the rates of violence against older adults in the Brazilian South Region in 2019 and 2020, Maringá, Paraná, Brazil, 2022

	2019			2020		
	Moran's I	z-value	p-value	Moran's I	z-value	p-value
Violence against older adults	0.274	15.593	0.001	0.365	20.584	0.001

Source: The authors(2022).

The Moran Local Index and the Getis Ord Gi* statistics (Figure 2) explain the clusters with occurrence of the problem above or below the mean for the South Region, according to the prevalence of the neighborhood, indicating a strong influence of space on the occurrence of violence against older adults. During both years under analysis, the Londrina municipality region in northern Paraná, as well as the Curitiba and Lapa regions in the Southeast, remained a high-high and hot-spot cluster in the state of Paraná. Furthermore, the Pato Branco region, in the Southwest of the state, also presented high LISA and Getis Ord Gi* values. In Rio Grande do Sul, the region of the municipality of Passo Fundo remained a high-high and hot-spot cluster during both years under study. The Caxias do Sul region also presented itself as a high-high and hot-spot cluster. Santa Catarina had only one high-high cluster, in 2020, consisting of the cities of Dionísio Cerqueira, Guarujá do Sul and São José do Cedro.

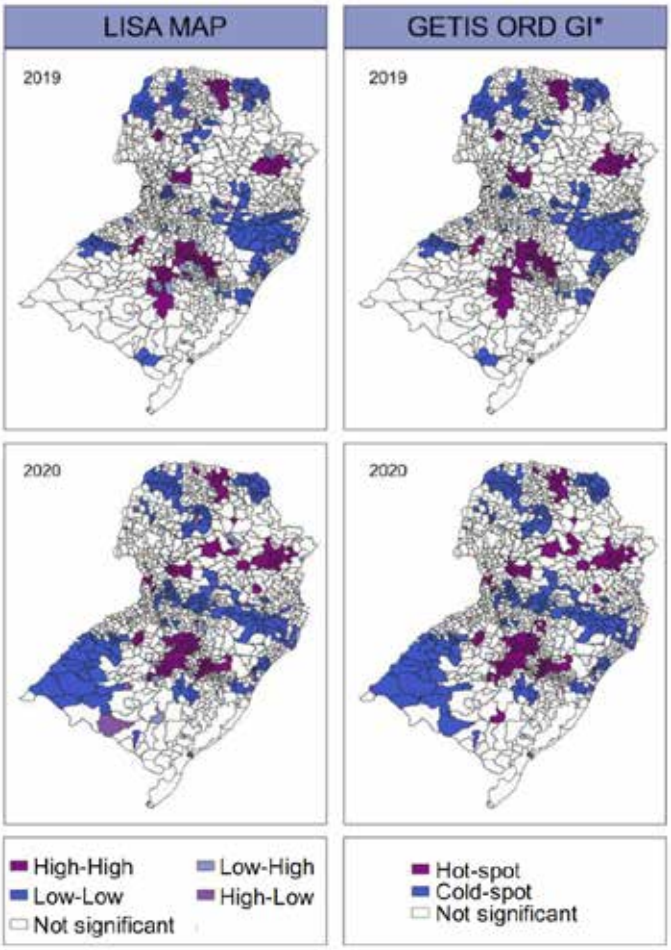

Figure 2 - LISA Map and Getis Ord Gi* corresponding to the notification rates of violence against older adults in the Brazilian South Region in 2019 and 2020, Maringá, Paraná, Brazil, 2022

Source: The authors (2022).

Between 2019 and 2020, three low-low and cold-spot clusters remained: two in Paraná's northern region and one in a large part of the state of Santa Catarina. A cold-spot stands out in the western region of Rio Grande do Sul, formed in 2020, covering 26 municipalities in the region of Uruguaiana, Dom Pedrito and Santo Ângelo. There are also some municipalities spread across the territory with low-low and cold-spot statistics, as well as with low-high and high-low values, not forming large clusters.

In Moran's bivariate analysis (Table 3), a positive correlation was found between VAOA notifications and mean monthly household income, the proportion of older adults living in relatives' homes, the proportion of aged females, and the COVID-19 lethality rate. Illiteracy was negatively associated with VAOA notifications, indicating higher rates of violence in neighboring cities where the schooling levels are higher.

Table 3 - Bivariate Moran's I corresponding to the rates of violence against older adults in the Brazilian South Region in 2019 and 2020, Maringá, Paraná, Brazil, 2022

	2019			2020		
	Moran's I	z-value	p-value	Moran's I	z-value	p-value
Mean monthly household income	0.074	5.911	0.001	0.098	7.573	0.001
Proportion of older adults living in relatives' homes	0.106	8.179	0.001	0.092	7.102	0.001
Illiteracy rate	-0.069	-5.42	0.001	-0.093	-7.049	0.001
Proportion of aged females	0.064	5.109	0.001	0.058	4.589	0.001
COVID-19 lethality				0.035	2.735	0.01

Source: The authors (2022).

DISCUSSION

Whether in the pandemic context or outside of it, older adults are one of the most vulnerable groups to violence, with reasons that range from social discrimination to insufficiency of public policies to guarantee their rights[7]. In this study, the findings corroborate data already known in the national and international literature, such as the predominance of female victims, literate, assaulted by family members, especially children, and taking place at the homes[3,12-14]. The predominance of white race/skin color victims corroborates the current ethnic profile of Southern Brazil, primarily colonized by European immigrants[15]. In relation to the type of violence, the predominance of physical and psychological violence and neglect stood out.

In this study, the smoothed VAOA rate in the Brazilian South region was reduced from 2019 to 2020. Social isolation, essential to reduce transmission of the new coronavirus, caused serious harms to everyday life in society[7]. Unquestionably, the isolation measures were fundamental to mitigating the pandemic; however, they promoted a reduction in social aid and the support network for violence victims, which may have contributed to underreporting of violence cases in 2020 and justified the finding of this study[7,16].

On the other hand, in relation to spatial distribution, the high-high and hot-spot cities for VAOA in 2019 became even more violent in 2020 with arrival of the pandemic, and those that had low prevalence or did not present significant data for this problem became less violent in 2020. National and international studies have warned that restrictive measures, as well as social isolation, have increased the family violence phenomenon in its different expressions by representing an additional risk for victims who live with their aggressors[7].

It is necessary to consider the context in which older adults live, as the measures to prevent COVID-19 may have been decisive in the worsening of violence situations, amplified in low-income communities with less access to health services, in precarious sanitation conditions, with high crowding degrees and, consequently, greater difficulty carrying out individual and collective prevention measures recommended for preventing the disease and containing the pandemic[7].

To reorganize the services, health professionals had to be reassigned to care for people with COVID-19, which distanced them from the daily care of older adults and screening situations of violence in this population[8]. It is noted that health teams are the main agents for detecting violence risks, as well as proposing integration between the health service and social justice and, therefore, early intervention[17].

In general, southern Brazil presents a high-high and hot-spot cluster spread throughout the region. In the state of Paraná, the Londrina municipality region, in the North region, as

well as the Curitiba and Lapa regions, in southeastern Paraná, and the Pato Branco region, in the Southwest of the state, had the highest prevalence of VAOA.

Pato Branco has the 4th highest Firjan Municipal Development Index (Índice *Firjan de Desenvolvimento Municipal*, IFDM) in the state, and is nationally recognized as a Technological Park[18]. Curitiba ranks 9th in the state's IFDM, and Londrina is in the 11th position. Both economies are driven by the tertiary sector and bring with them consumers and resources from other locations, both inside and outside Brazil[19].

The change in the global economy resulting from industrialization processes contributed to older adults losing their status as family providers, favoring loss of autonomy and increasing their vulnerability to situations of violence[20]. Macrostructural, community, relational and individual factors interact and feed each other, promoting facilitating and hindering scenarios for the occurrence of violence, many of them significantly impacted by the health and economic crisis and prolonged social distancing during the pandemic[7]. Given the multidimensionality of the determinants that enhance the occurrence of violence, ethical, political, cultural and social issues in each context can interfere with the incidence of this event[17].

In Rio Grande do Sul, the Passo Fundo municipality region (66th IFDM of the state) remained a high-high and hot-spot cluster during both years under study. The Caxias do Sul region (77th IFDM in the state) also presented itself as a high-high and hot-spot cluster. Both municipalities are considered large urban centers, as well as the most prominent in the state of Paraná. Urbanization can bring about negative effects on the population, such as poverty, environmental degradation and violence, implying large costs for the general population[21].

The literature indicates that border regions have high violence rates, a fact that is not repeated in the Uruguaiana region, in Rio Grande do Sul, where a cold-spot is formed. Some studies show that Uruguay has the second highest protection rate for older adults in Latin America and the Caribbean (85.97%), considered a determining factor for a better quality of life and a reduction in the occurrence of violence in this age group[22].

The state of Santa Catarina presented the lowest values for VAOA, only one high-high cluster, in 2020, consisting of the cities of Dionísio Cerqueira, (186th IFDM in the state), Guarujá do Sul, (183rd IFDM in the state) and São José do Cedro (47th IFDM in the state). These are cities with less than 20,000 inhabitants, with economies based on agriculture. Smaller urban centers have deficits in the formal VAOA protection network, with the need to structure the informal protection network, which in most cases is made up of neighbors and nearby communities[23].

Some studies that relate VAOA to municipal economy and development are not very significant in the scientific literature. However, these results allow us to reflect on large urban centers. The high notification rates in the municipalities analyzed may suggest that large centers, surrounded by dormitory cities, welcome more people every day to perform their jobs, which eases the search for services in these large cities. Another characteristic of large centers is that formal older adults' protection networks are more consolidated, which allows greater access[23].

Another possibility is that, in large urban centers, victims have greater access to knowledge about the violence phenomenon, and are therefore able to identify it more clearly. To support this analysis, this study also showed that VAOA was associated with higher family incomes, the presence of older adults in relatives' homes, aged women and COVID-19 lethality. The illiteracy rate showed a negative correlation, indicating that the higher the illiteracy level in the municipality, the lower the violence rates.

The fact that the higher the illiteracy level in the municipality, the lower the rates of violence against older adults, suggests the reflection that municipalities with higher schooling levels tend to perceive the violence suffered by older adults with greater discernment and

provide greater access to coping services, as well as adequately structuring the formal and informal support networks.

Another noteworthy aspect is that the cities that presented the highest mortality rates due to COVID-19 were also those with the highest VAOA rates. A study carried out in Fortaleza/CE showed that deaths due to COVID-19 are related to greater social vulnerability, which can be worsened by unemployment and social isolation[24]. It is believed that, as the city has high fatality rates for COVID-19, the restrictive measures were more stringent to mitigate the pandemic.

With intensification of social isolation, older adults became even more vulnerable to violence, as most of it takes place at the homes, with aggressors from the family, with the older adults' own homes as the scene of violence and the aggressors, for the most part, being their children[3,13,21]. Understanding this spatial pattern is of fundamental importance in order to identify the group at the highest risk and, therefore, allocate appropriate resources and strategies to this problem.

In the international and national literature, few studies have carried out spatial analyses of the records corresponding to violence against older adults, which makes it difficult to discuss these data[17]. This research presents potential limitations inherent to the ecological study design – the ecological bias – in which an association observed between households does not necessarily mean that the same association is true at the level of individuals, and also related to VAOA underreporting. In relation to the limitations related to the pandemic moment, temporality can be a limiting factor, as the data were not collected during the entire pandemic decree period and might also have been influenced by more restrictive decrees or loosened measures to fight against COVID-19.

As implications for the advancement of scientific knowledge in the health area, this research aims at contributing to the implementation of strategies to combat VAOA at the managerial and community levels, encouraging municipalities and states to strengthen formal and informal networks to protect older adults that are victims of violence.

FINAL CONSIDERATIONS

This study analyzed the spatial distribution of violence against older adults in the Brazilian South region before and during the COVID-19 pandemic. It was possible to show that the VAOA rates were reduced from 2019 to 2020; however, places that were violent in 2019 became even more violent in 2020, amid the new coronavirus pandemic. Another highlight found in this study is the positive correlation between the COVID-19 fatality rate and VAOA.

The research shows a negative scenario in relation to confronting VAOA in pandemic times, as the social isolation necessary to mitigate the COVID-19 pandemic further concentrated VAOA cases in the Brazilian South region.

Therefore, it is necessary to devise interventions to minimize VAOA cases, considering the pandemic scenario experienced, with a view to reducing the risks of violence, as well as preserving the quality of life of this population group. An important strategy that should be adopted by states and municipalities is expanding the formal and informal support networks, fundamental for combating VAOA, and it is indispensable that older adults enjoy access to services to fight against violence both in person and non-face-to-face, with virtual consultations or via telephone channels.

The study contributes to the academic field and to the Nursing practice, as it provides support for decision-making based on proven evidence that shows the predictive factors of violence against older adults. In addition to that, it strengthens the health team's field

of action to propose interventions to combat the phenomenon of violence, as well as triggering new research studies on this theme.

REFERENCES

1. Park EO. Tipo mais prevalente de abuso aos idosos e sua correlação com depressão do idoso. Acta Paul. Enferm. [Internet]. 2019 [cited 2022 Feb 20]; 32(1):95-100. Available from: https://doi.org/10.1590/1982-0194201900013

2. Castro MC, Gurzenda S, Turra CM, Kim S, Andrasfay T, Goldman N. Reduction in life expectancy in Brazil after COVID-19. Nat Med. [Internet]. 2021 [cited 2022 Feb 20]; 27:1629–35. Available from: https://doi.org/10.1038/s41591-021-01437-z

3. Rodrigues RAP, Santos AMR dos, Pontes MDLDF, Monteiro EA, Fhon JRS, Bolina AF, et al. Report of multiple abuse against older adults in three Brazilian cities. Plos one. [Internet]. 2019 [cited 2022 Apr 18]; 14(2):e0211806. Available from: https://doi.org/10.1371/journal.pone.0211806

4. World health organization. Aumenta el maltrato a las personas de edad: según la OMS, afecta a uno de cada seis adultos mayores [Internet]. Geneva: WHO; 2018 [cited 2022 Jan 10]. Available from: https://www.who.int/es/news/item/14-06-2017-abuse-of-older-people-on-the-rise-1-in-6-affected

5. Yon Y, Mikton CR, Gassoumis ZD, Wilber KH. Elder abuse prevalence in community settings: a systematic review and meta-analysis. Lancet Glob Health. [Internet]. 2017 [cited 2022 Apr 18]; 05:147-156. Available from: https://doi.org/10.1016/S2214-109X(17)30006-2

6. Machado DR, Kimura M, Duarte YAO, Lebrão ML. Violence perpetrated against the elderly and health-related quality of life: a populational study in the city of São Paulo, Brazil. Ciênc Saúde Colet. [Internet]. 2020 [cited 2022 May 22]; 25(3):1119-1128. Available from: https://doi.org/10.1590/1413-81232020253.19232018

7. Moraes CL de, Marques ES, Ribeiro AP, Souza ER de. Violência contra idosos durante a pandemia de Covid-19 no Brasil: contribuições para seu enfrentamento. Ciênc Saúde Colet. [Internet]. 2020 [cited 2022 May 22]; 25:4177–84. Available from: https://doi.org/10.1590/1413-812320202510.2.27662020

8.Yunus RM, Abdullah NN, Firdaus MAM. Elder abuse and neglect in the midst of COVID-19. J Glob Health. [Internet]. 2021 [cited 2022 May 22]; 11:03122. Available from: https://doi.org/10.7189/jogh.11.03122

9. Elm EV, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbrou JP. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. Int J Surg. [Internet]. 2014 [cited 2022 May 24]; 12:1495-99. Available from: https://doi.org/10.1016/j.ijsu.2014.07.013

10. Brasil.io. Boletins informativos e casos do coronavírus por município por dia. [Internet]. 2022 [cited 2022 Apr 15]. Available from: https://brasil.io/dataset/covid19/caso/

11. Brasil. Lei n. 12.527, de 18 de novembro de 2011. Regula o acesso a informações previsto no inciso XXXIII do art. 5°, no inciso II do § 3° do art. 37 e no § 2° do art. 216 da Constituição Federal; altera a Lei n° 8.112, de 11 de dezembro de 1990; revoga a Lei n° 11.111, de 5 de maio de 2005, e dispositivos da Lei n° 8.159, de 8 de janeiro de 1991; e dá outras providências. Diário Oficial da República Federativa do Brasil, Brasília, 18 nov 2011. Edição Extra.

12. Rodrigues RAP, Monteiro EA, Santos AMR dos, Ponte MLF, Fhon JRS, Bolina AF, et al. Older adults abuse in three Brazilian cities. Rev Bras Enferm. [Internet]. 2017 [cited 2022 May 22]; 70(4):783-91. Available from: http://dx.doi.org/10.1590/0034-7167-2017-0114

13. Matos NM de, Albernaz EO, Sousa BB, Braz MC, Vale MS do, Pinheiro HA. Perfil do agressor de pessoas idosas atendidas em um centro de referência em geriatria e gerontologia do Distrito Federal, Brasil. Rev. Bras. Geriatr. Gerontol. [Internet]. 2019 [cited 2022 June 10]; 22(5):e190095. Available from: https://doi.

org/10.1590/1981-22562019022.190095

14. Sousa RCRD, Araújo GKND, Souto RQ, Santos RCD, Santos RDC, Almeida LR de. Factors associated with the risk of violence against older adult women: a cross-sectional study. Rev. Latino-Am. Enfermagem. [Internet]. 2021 [cited 2022 June 10]; 29:e3394. Available from: https://doi.org/10.1590/1518-8345.4039.3394

15. Brasil. Ministério da Integração Nacional. Secretaria de Programas Regionais. Programa de Desenvolvimento da Faixa de Fronteira. Proposta de Reestruturação do Programa de Desenvolvimento da Faixa de Fronteira [Internet]. Brasília: Ministério da Integração Nacional; 2005 [cited 2022 Jan 05]. 17 p. Available from: https://antigo.mdr.gov.br/images/stories/ArquivosSNPU/Biblioteca/publicacoes/Introduo-e-antecedentes.pdf

16. Souza EAB, Silva BC da, Silva CF da, Cabral LP, Silva Filho NJ da, Zimmermann IMM, et al. Violência contra idosos relatada em notícias durante a pandemia do novo coronavírus. RSD. [Internet]. 2021 [cited 2022 June 10]; 10:e57101420046. Available from: https://doi.org/10.33448/rsd-v10i14.20046

17. Rodrigues RAP, Chiaravalloti-Neto F, Fhon JRS, Bolina AF. Spatial analysis of elder abuse in a Brazilian municipality. Rev Bras Enferm. [Internet]. 2021 [cited 2022 June 10]; 74(Suppl 2):e20190141. Available from: http://dx.doi.org/10.1590/0034-7167-2019-0141

18. Prefeitura Municipal de Pato Branco. [Internet]. 2022 [cited 2022 Jan 05]. Available from: https://patobranco.pr.gov.br/informacoes-gerais-de-pato-branco/

19. Prefeitura Municipal de Londrina. Perfil de Londrina 2020, ano base 2019. [Internet]. 2022 [cited 2022 Jan 05]. Available from: https://portal.londrina.pr.gov.br/perfil-de-londrina/perfil-de-londrina-2020?showall=1

20. Winck DR, Alvarez AM. Percepções de enfermeiros da estratégia saúde da Família acerca das causas da violência contra a pessoa idosa. Rev. APS. [Internet]. 2018 [cited 2022 Apr 10]; 21(1):93–103. Available from: https://doi.org/10.34019/1809-8363.2018.v21.16105

21. Alencar Junior F de O, Moraes JR de. Prevalência e fatores associados à violência contra idosos cometida por pessoas desconhecidas, Brasil, 2013. Epidemiol. Serv. Saude. [Internet]. 2018 [cited 2022 Apr 10]; 27(2):e2017186. Available from: https://doi.org/10.5123/S1679-49742018000200009

22. Costanzi RN, Ansiliero A. Evolução recente e alguns determinantes da proteção social dos idosos na América Latina e no Brasil. Revista do Serviço Público. [Internet]. 2009 [cited 2022 Jan 10]; 60(3):219-240. Available from: https://doi.org/10.21874/rsp.v60i3.24.

23. Bolsoni CC, Warmling D, Faust SB. Atenção à pessoa idosa em situação de violência doméstica [dissertação]. Florianópolis (SC): Universidade Federal de Santa Catarina; 2018. Available from: https://ares.unasus.gov.br/acervo/html/ARES/13971/1/MOOC-Idoso-o.pdf

24. Vieira-Meyer APGF, Morais APP, Campelo ILB, Guimarães JMX. Violência e vulnerabilidade no território do agente comunitário de saúde: implicações no enfrentamento da COVID-19. Ciênc Saúde Colet. [Internet]. 2021 [cited 2022 Jan 15]; 26(2):657-668. Available from: https://doi.org/10.1590/1413-81232021262.29922020

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Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - **Costa AB, Marques FRDM, Oliveira NN de, Oliveira RR de, Facchini LA.** Drafting the work or revising it critically for important intellectual content - **Costa AB, Marques FRDM, Salci MA, Carreira L.** Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - **Costa AB, Marques FRDM, Oliveira NN de, Oliveira RR de, Salci MA, Facchini LA, Carreira L**. All authors approved the final version of the text.

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