

# Analysis of Repeated Violence Against Older Adults in a Brazilian State\*

**Theme:** Promotion and prevention.

**Contribution:** In this study, there are great contributions to public health, considering that discussions arise about a major health problem: violence against older adults. The results, in addition to highlighting the high recidivism frequency of this condition, bring data regarding the factors associated with this phenomenon, contributing to the indication of the most vulnerable groups and, therefore, helping in its identification, confrontation, and prevention.

## ABSTRACT

**Objective:** To identify notified cases of repeated violence against older adults and its association with the characteristics of the victims, of the aggressor, and the aggression. **Materials and methods:** A cross-sectional study was conducted based on data recorded in the Information System for Notifiable Health Problems on interpersonal repeated violence perpetrated against older adults between 2011 and 2018 in Espírito Santo, Brazil. The data were analyzed employing Poisson multiple regression with robust variance. **Results:** The frequency of repeated violence was 50.1 % (95 % CI: 47.7-52.6). Being 80 years old or more, presenting disabilities or disorders, and having suffered violence by partners and/or children were associated with this condition in both genders. In aged men, violence was more frequently perpetrated by two or more aggressors and during the day, whereas aged women were more frequently assaulted in urban areas. **Conclusion:** The high frequency of repeated violence and the associations with the characteristics studied reflect the need for care to older adults with disabilities or disorders and the possible signs of burden in family caregivers that may result in situations of violence. Actions aimed at early detection and adequate assistance to the victims and to the aggressors are important to avoid the chronicity of the condition.

## KEYWORDS (SOURCE: DECS)

Violence; elder abuse; recidivism; mandatory reporting; epidemiological monitoring.

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# *Análisis de la violencia de repetición hacia el adulto mayor en un estado brasileño\**

## RESUMEN

**Objetivo:** identificar la frecuencia de violencia de repetición notificada hacia el adulto mayor y su asociación con características de la víctima, el agresor y la agresión. **Materiales y métodos:** estudio transversal, desde datos registrados en el Sistema de Información de Agravios y Notificación acerca de la violencia interpersonal de repetición perpetrada hacia el adulto mayor en Espírito Santo, Brasil, entre el 2011 y el 2018. Se analizaron los datos por medio de la regresión múltiple de Poisson con variancia robusta. **Resultados:** la frecuencia de violencia de repetición fue de 50,1 % (IC 95 %: 47,7-52,6). Tener 80 años o más, presentar discapacidades o trastornos y haber sido violentado por compañero(a) y/o hijo(a) estuvieron asociados con el agravo en ambos sexos. En hombres mayores, la violencia fue más frecuentemente perpetrada por dos o más agresores y durante el día, mientras que mujeres mayores fueron más agredidas en zonas urbanas. **Conclusiones:** la alta frecuencia de la violencia de repetición y las asociaciones con las características estudiadas evidencian la necesidad de atención al adulto mayor con discapacidad o trastornos y las posibles señales de sobrecarga de cuidadores familiares que pueden resultar en situaciones de violencia. Acciones que tienen el propósito de detectar de forma temprana y brindar adecuada asistencia a las víctimas y a los agresores son importantes para evitar la cronicidad del agravo.

## PALABRAS CLAVE (FUENTE: DECS)

Violencia; maltrato al anciano; reincidencia; notificación obligatoria; monitoreo epidemiológico.

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\* El artículo se deriva de la tesis de doctorado "Panorama de la violencia al adulto mayor en Espírito Santo: análisis de los casos notificados entre el 2011 y el 2018", presentada al Programa de Doctorado en Salud Colectiva de la Universidade Federal do Espírito Santo, Brasil.

# *Análise da violência de repetição contra a pessoa idosa em um estado brasileiro\**

## RESUMO

**Objetivo:** identificar a frequência de violência de repetição notificada contra a pessoa idosa e sua associação com características da vítima, do agressor e da agressão. **Materiais e métodos:** estudo transversal, a partir de dados registrados no Sistema de Informação de Agravos e Notificação sobre a violência interpessoal de repetição perpetrada contra a pessoa idosa no Espírito Santo, Brasil, entre 2011 e 2018. Os dados foram analisados por meio da regressão múltipla de Poisson com variância robusta. **Resultados:** a frequência de violência de repetição foi de 50,1 % (IC 95 %: 47,7-52,6). Ter 80 anos ou mais, apresentar deficiências ou transtornos e ter sido violentado por parceiro(a) e/ou filho(a) estiveram associados ao agravo em ambos os sexos. Em homens idosos, a violência foi mais frequentemente perpetrada por dois ou mais agressores e durante o dia, enquanto mulheres idosas foram mais frequentemente agredidas em zonas urbanas. **Conclusões:** a alta frequência da violência de repetição e as associações com as características estudadas refletem a necessidade de atenção à pessoa idosa com deficiências ou transtornos e aos possíveis sinais de sobrecarga de cuidadores familiares que podem resultar em situações de violência. Ações que visem à detecção precoce e à adequada assistência às vítimas e aos agressores são importantes para evitar a cronicidade do agravo.

## PALAVRAS-CHAVE (FONTE: DECS)

Violência; maus-tratos ao idoso; reincidência; notificação de abuso; vigilância epidemiológica; monitoramento epidemiológico.

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\* Este artigo é derivado da tese de doutorado intitulada "Panorama da violência contra a pessoa idosa no Espírito Santo: uma análise dos casos notificados entre 2011 e 2018", apresentada ao Programa de Doutorado em Saúde Coletiva da Universidade Federal do Espírito Santo, Brasil.

## Introduction

Violence against older adults represents a serious public health problem (1, 2). It occurs in different ways and diverse situations, and it can be recognized as visible when caused by physical injuries, or as invisible when there are no wounds, but resulting in psychological distress and harm (3). The concept developed by the World Health Organization and adopted by the official documents in Brazil defines violence against older adults as any individual or repeated act or the lack of proper action caused by a relationship in which there is expectation and/or trust, resulting in physical harms or psychological distress (1, 3, 4).

This type of abuse results in harm to health in the individual and collective scopes causes physical and emotional trauma, compromises the quality of life of the older adult, the families, and the communities, in addition to attributing new demands and responsibilities to the health system (2). In the aged population, violence has been strongly associated with negative and devastating consequences not only to the older adult's physical health but also to the onset of depressive conditions, which leads to higher use rates of the health services for longer periods, in addition to impacting on their social lives. Violence against older adults has also been associated with the occurrence of early mortality in this population (5-7).

Systematic reviews published recently in different continents of the world, and taking into account the various countries, point out that the world prevalence of violence against older adults ranges from 14.3 % to 15.7 % (8, 9). Similar results were found in studies carried out with older adults in several Brazilian studies, which point out a range from 13 % to 14.4 % of violence against older adults in Brazil (10, 12).

It is important to highlight a severe problem that has been more and more associated with violence against older adults: the history of repeated abuse, which can result in the chronicity of this phenomenon. Chronic violence tends to occur more frequently within the family, daily, and with a tendency to progressively increase the severity level (12). In this context, it is not uncommon to find reports of previous episodes of violence among cases of denunciation or notification of violence against older adults as observed by a multicentric study carried out in the metropolitan region of Chicago, the United States, which showed that 52.3 % of the older adults' victims of violence reported a repeated history (13).

Accordingly, the early identification of violence against older adults and qualified and effective care to the families are the main ways of preventing that this person is repeatedly assaulted (13). In this regard, the health sector plays an important role among the sectors able to act against violence since that, due to its proximity and access to older adults, families, and communities, the professional is capable of efficiently contributing to the identification and confrontation of this condition (14).

An important public health strategy for this confrontation is the notification of the violence, as data generated from this system contributes not only to the sizing of the problem and the understanding of its associated factors, but it is also capable of subsidizing the public management in the definition of priorities care and in the implementation of public policies of surveillance and assistance to victims (2, 15).

It is important to highlight that, even though it is not so frequent, revictimization is an aspect of violence against older adults still insufficiently analyzed in the literature, especially its associated factors (16). Little is known about the characteristics of the victim or aggressor in cases of repeated violence (17). Several studies suggest that these characteristics can differ from those related to first aggression, and understanding such factors can be essential to deal with this condition and reduce violence chronicity (16). Given the above, the objective of this study was to identify the frequency of notified repeated violence against older adults and its association with the characteristics of the victim, the aggressor, and the aggression.

## Materials and methods

An analytical study of the cross-sectional type, conducted with all the cases of interpersonal violence in the aged population (age equal to or over 60 years old) notified between 2011 and 2018 in the state of Espírito Santo, Brazilian Southeast region. The database used, from the Information System for Notifiable Health Problems (*Sistema de Informação de Agravos de Notificação, SINAN*), was provided by the Epidemiological Surveillance of the State Health Secretariat of Espírito Santo.

The monitoring of cases of violence is supported through the use of forms for the notification/investigation of interpersonal, and self-provoked violence, which has information related to the profile of the victim and of the aggressor, the characteristics of

the type of violence and the referrals performed. This form is filled out in the various notifying sources, including the health services, and is forwarded to the sector responsible for the municipal Epidemiological Surveillance office, and later transferred to the state and federal spheres to compose the national database (18).

The initial cutoff point of the research period (January 2011) was selected since, from this date and the publication of Ordinance 104, violence becomes an integral part of the list of mandatory reporting problems, generalizing its reporting to all the health services (2).

Between March and May 2019, an exploratory and descriptive analysis of the database was carried out to qualify the variables of interest and correct possible errors or inconsistencies, following the guidelines of the Handbook for the Notification of Interpersonal and Self-Provoked Violence. In this process, in addition to the corrections, five duplicate forms were excluded.

The notification of violence against older adults was analyzed according to the outcome of interest: history of repeated violence (yes/no) stratified by gender (male/female). The independent variables were the following: characteristics of the victims – age (from 60 to 69 years old/from 70 to 79 years old/80 years old or more), race/skin color (white/black-brown), schooling (from 0 to 4 years/from 5 to 8 years/9 years or more), marital status (with a partner/no partner) and presence of disability/disorder (yes/no); characteristics of the aggressor – age (from 0 to 19 years old/from 20 to 58 years old/older than 60 years old), gender (male/female/both), relationship (daughter/son/partner/other relatives/unknown), suspicion of alcohol consumption (yes/no) and number of people involved (one/two or more); characteristics of the aggression – if it took place in the house (yes/no), period of the day (morning-afternoon/night-early morning), area (urban/rural), motivated by intolerance (yes/no) and referrals (yes/no).

Data was processed using the Stata 13.0 statistical program and analyzed through descriptive statistics in gross and relative frequencies and 95% confidence intervals. The bivariate analyses were performed utilizing the Chi-Square ( $\chi^2$ ) test, with a significance level of  $p < 0.05$ . The association between the variables was tested through Poisson multiple regression with robust variance, expressed in gross and adjusted prevalence ratio (PR) values, and the respective 95% confidence intervals. For the adjusted analysis, the variables with a  $p$ -value  $< 0.20$  found in the

bivariate analysis entered the model, and permanence was with  $p < 0.05$ . The adjusted analysis occurred with entry into the model at two levels. At the first level, data of the victim was included and, at the second, all other variables analyzed were included.

The study was approved by the Research Ethics Committee of *Universidade Federal do Espírito Santo* under Opinion No 2,819,597 and all rules and guidelines of Resolution 499/2012 of the Brazilian National Health Council were respected.

## Results

Between 2011 and 2018, 1,635 notifications of interpersonal violence against older adults were recorded in the state of Espírito Santo. Of these, 820 were cases of violence with a repeated history, which is equivalent to a frequency of 50.1 % (95 % CI: 47.7-52.6) (data not presented in the Table).

Table 1 presents the general characterization of the cases of repeated violence notified. It is noticed that, among the older adults assaulted, most (72.2 %) are women, aged from 60 to 69 years old (46.6 %), black/brown-skinned (55.9 %), with up to four years of studies (62.3 %), with a partner (59 %), and not presenting any disability/ disorder (69.7 %). Regarding the profile of the aggressor, most (76.9 %) are adults, males (59.2 %), the victim's children (56.1 %), and with no suspicion of alcohol abuse (53.7 %). The aggression was most commonly perpetrated by one person (66.5 %), in the house (91.8 %), during the day (67.4 %), in an urban area (89.2 %), and not motivated by intolerance (51.6 %). Most of the cases (86.8 %) were referred to other sectors.

**Table 1.** Characterization of the notified cases of repeated violence against older adults according to data of the victim, the aggressor, and the occurrence. Espírito Santo, 2011-2018

Variables	N	%	95 % CI
<b>Gender</b>			
Male	228	21.8	24.8-31.0
Female	592	72.2	69-75.2
<b>Age of the older adult</b>			
60-69 years old	382	46.6	43.2-50
70-79 years old	230	28	25.1-31.2
80+ years old	208	35.4	22.5-28.5

Variables	N	%	95 % CI
<b>Race/Skin color</b>			
White	333	44.1	40.6-47.7
Black/Brown	422	55.9	52.3-59.4
<b>Schooling (years)</b>			
0-4 years	334	62.3	58.1-66.3
5-8 years	77	14.4	11.6-17.6
9+ years	125	23.3	19.9-27.1
<b>Marital status</b>			
With a partner	430	59	55.4-62.5
No partner	299	41	37.5-44.6
<b>Disability/Disorder</b>			
Yes	222	30.3	27-33.7
No	512	69.7	66.3-73.3
<b>Age of the aggressor</b>			
0-19 years old	15	2.7	1.6-4.3
20-59 years old	432	76.9	73.2-80.2
60+ years	115	20.4	17.3-24
<b>Gender of the aggressor</b>			
Male	469	59.2	55.7-62.6
Female	193	24.4	21.5-27.5
Both	130	16.4	14-19.1
<b>Relationship with the victim</b>			
Son/Daughter	410	56.1	52.4-59.6
Partner	172	23.5	20.6-26.7
Other relatives	125	17.1	14.5-20
Unknown	24	3.3	2.2-4.8
<b>Suspected use of alcohol</b>			
Yes	267	46.3	42.2-50.4
No	310	53.7	49.6-57.8
<b>Number of people involved</b>			
One	538	66.5	63.2-69.7
Two or more	271	33.5	30.3-36.8

Variables	N	%	95 % CI
<b>Took place in the house</b>			
Yes	729	91.8	89.7-93.5
No	65	8.2	6.4-10.3
<b>Period of the day</b>			
Morning/Afternoon	331	67.4	63.1-71.4
Night/Early morning	160	32.6	28.6-36.9
<b>Area of occurrence</b>			
Urban	711	89.2	86.8-91.2
Rural	86	10.8	8.8-13.1
<b>Motivated by intolerance</b>			
Yes	238	48.4	43.9-52.8
No	254	51.6	47.2-56.0
<b>Referrals</b>			
Yes	695	86.8	84.2-88.9
No	106	13.2	11-15.8

The absolute frequency totals differ due to missing data (blank or unknown in the notification forms)

Source: SINAN, Espírito Santo, Brazil, 2011-2018.

In the bivariate analyses, described in Table 2, it was observed that repeated violence, in both genders, was related to the age of the older adult, disability/disorder, gender of the aggressor, relationship with the victim, suspicion of alcohol consumption, locus, and period of the occurrence. Repeated violence against male older adults was also related to the number of people involved while, against female older adults, it was also related to the age of the aggressor and to the area of occurrence.

In Table 3, we can see the adjusted analysis of repeated violence against male older adults, in which it is possible to notice that the age of the older adult, disability/disorder, relationship with the victim, the number of people involved, and period of day of the occurrence were associated with the problem. Older adults aged 80 years old or more presented 2.10 times more prevalence of repeated violence (95 % CI: 1.72-2.57), which was also more prevalent among older adults with disability or disorders (PR: 1.93; 95 % CI: 1.63-2.28). Among male older adults, this problem was almost five times more perpetrated by children (PR: 4.97; 95 % CI: 2.52-9.78) and/or female partners (PR: 4.57; 95 % CI: 2.18-9.58), involving two or more people (PR: 1.40; 95 % CI: 1.11-1.76) and occurring during the day (PR: 1.41; 95 % CI: 1.06-1.88).

**Table 2.** Distribution of repeated violence against older adults, stratified by gender, according to the characteristics of the victim, the aggressor, and the occurrence. Espírito Santo, 2011-2018

Variables	Male gender n=498			p-value	Female gender n=592			p-value
	n	%	95 % CI		n	%	95 % CI	
<b>Age of the older adult</b>								
60-69 years old	99	35.1	29.7-40.9	< 0.001	283	64.2	59.6-68.5	< 0.001
70-79 years old	70	51.5	43.0-59.8		160	69.6	63.3-75.2	
80+ years old	59	83.1	72.4-90.2		149	81.4	75.1-86.4	
<b>Race/Skin color</b>								
White	80	43.9	36.9-51.3	0.237	253	67.8	62.9-72.4	0.421
Black/Brown	133	49.6	43.6-55.6		289	70.5	65.8-74.7	
<b>Schooling (years)</b>								
0-4 years	103	45.6	39.1-52.1	0.835	231	71.1	65.9-75.8	0.382
5-8 years	21	42	29.1-56.1		56	63.6	53-73	
9+ years	30	47.6	35.5-59.9		95	67.8	59.6-75.1	
<b>Marital status</b>								
With a partner	89	47.8	40.7-55.1	0.473	341	70.9	66.6-74.8	0.954
No partner	106	44.3	38.1-50.7		193	70.7	65-75.8	
<b>Disability/Disorder</b>								
Yes	65	81.2	71.1-88.4	< 0.001	157	87.2	81.5-91.4	< 0.001
No	138	39.1	34.1-44.3		374	64.1	60.2-67.9	
<b>Age of the aggressor</b>								
0-19 years old	6	37.5	17.4-63.1	0.617	9	47.4	26.2-69.5	0.002
20-59 years old	126	49.6	43.4-55.8		306	71.8	67.3-75.9	
60+ years old	15	51.7	33.7-69.3		100	82.6	74.8-88.4	
<b>Gender of the aggressor</b>								
Male	97	33.5	28.2-39.1	< 0.001	372	70.3	66.3-74.1	0.006
Female	70	69.3	59.6-77.6		123	66.1	59.0-72.6	
Both	44	86.3	73.7-93.4		86	83.5	75.0-89.5	

Variables	Male gender n=498			p-value	Female gender n=592			p-value
	n	%	95 % CI		n	%	95 % CI	
<b>Relationship with the victim</b>								
Son/Daughter	110	75.9	68.2-82.2	< 0.001	300	84.0	79.8-87.5	< 0.001
Partner	25	56.8	41.8-70.7		147	79.9	73.4-85.1	
Other relatives	39	54.9	43.2-66.1		86	62.8	54.3-70.5	
Unknown	13	13.5	8-22		11	18.6	10.6-30.7	
<b>Suspected use of alcohol</b>								
Yes	58	40.6	32.8-48.8	0.017	209	77.7	72.3-82.3	0.002
No	95	54	46.5-61.2		215	66.1	60.8-71.1	
<b>Number of people involved</b>								
One	127	42.3	36.8-48	0.003	411	68.4	64.5-71.9	0.051
Two or more	92	56.8	49-64.2		179	75.2	69.3-80.3	
<b>Took place in the house</b>								
Yes	182	58.7	53.1-64.1	< 0.001	547	74.7	71.4-77.8	< 0.001
No	31	22.6	16.3-30.4		34	36.9	27.7-47.3	
<b>Period of the day</b>								
Morning/Afternoon	94	53.1	45.7-60.4	< 0.001	237	69.5	64.4-74.2	0.009
Night/Early morning	42	25	19-32.1		118	58.4	51.5-65.0	
<b>Area of occurrence</b>								
Urban	187	47.3	42.4-52.3	0.975	542	71.6	68.2-74.7	< 0.001
Rural	33	47.1	35.7-58.9		53	54.1	44.1-63.7	
<b>Motivated by intolerance</b>								
Yes	40	47.6	41.6-56.7	0.823	198	77	64.9-79.4	0.121
No	83	49.1	37.1-58.3		171	70.9	71.5-81.8	
<b>Referrals</b>								
Yes	193	47.4	42.6-52.3	0.714	502	69.5	66.1-72.8	0.633
No	32	45.1	33.8-56.8		74	67.3	57.9-75.4	

Test: Pearson's Chi-Square.

Source: SINAN, Espírito Santo, Brazil, 2011-2018.



**Table 3.** Gross and adjusted analysis of the effects of the characteristics of the victim, the aggressor, and the occurrence on the repeated violence perpetrated against male older adults. Espírito Santo, 2011-2018

Variables	Gross analysis			Adjusted analysis		
	PR	95 % CI	p-value	PR	95 % CI	p-value
<b>Age of the older adult</b>						
60-69 years old	1.0		< 0.001	1.0		< 0.001
70-79 years old	1.47	1.17-1.84		1.44	1.15-1.82	
80+ years old	2.37	1.96-2.86		2.10	1.72-2.57	
<b>Disability/Disorder</b>						
Yes	2.08	1.76-2.46	< 0.001	1.93	1.63-2.28	< 0.001
No	1.0			1.0		
<b>Gender of the aggressor</b>						
Male	1.0		< 0.001	1.0		0.930
Female	2.07	1.68-2.55		1.0	0.68-1.47	
Both	2.58	2.12-3.14		1.08	0.69-1.68	
<b>Relationship with the victim</b>						
Son/Daughter	5.60	3.35-9.37	< 0.001	4.97	2.52-9.78	< 0.001
Partner	4.20	2.38-7.41		4.57	2.18-9.58	
Other relatives	4.10	2.34-7.02		3.73	1.82-7.66	
Unknown	1.0			1.0		
<b>Suspected use of alcohol</b>						
Yes	1.0		0.020	1.0		0.903
No	1.33	1.05-1.69		1.02	0.74-1.42	
<b>Number of people involved</b>						
One	1.0		0.002	1.0		0.004
Two or more	1.34	1,11-,62		1.40	1.11-1.76	
<b>Took place in the house</b>						
Yes	2.60	1.88-3.59	< 0.001	1.03	0.67-1.58	0.887
No	1.0			1.0		
<b>Period of the day</b>						
Morning/Afternoon	2.12	1.58-2.86	< 0.001	1.41	1.06-1.88	0.018
Night/Early morning	1.0			1.0		

Test: Poisson Regression with a robust variance; PR: Prevalence Ratio.

Source: SINAN. Espírito Santo, Brazil, 2011-2018.

After adjustments for the confounding factors, the repeated violence perpetrated against female older adults remained associated with the age of the older adults, disability or disorder, relationship with the victim, and area of occurrence (Table 4). This problem is 20 % more frequent among older adults aged 80 years old or more (PR: 1.20; 95 % CI: 1.09-1.33) and 33 % more frequent

among those with some type of disability or disorder (PR: 1.33; 95 % CI: 1.22- 1.44), was 3.67 times more perpetrated by children (95 % CI: 1.18-6.15) and 3.81 times more by the victims' partners (95 % CI: 2.27-6.40); in addition to that, repeated violence practiced against female older adults was 34 % more prevalent in urban areas (PR: 1.34; 95 % CI: 1.11-1.63).

**Table 4.** Gross and adjusted analysis of the effects of the characteristics of the victims, the aggressor, and the occurrence of the repeated violence perpetrated against female older adults. Espírito Santo, 2011-2018

Variables	Gross analysis			Adjusted analysis		
	PR	95 % CI	p-value	PR	95 % CI	p-value
<b>Age of the older adult</b>						
60-69 years old	1.0		< 0.001	1.0		< 0.001
70-79 years old	1.08	0.97-1.21		1.06	0.95-1.19	
80+ years old	1.27	1.15-1.40		1.20	1.09-1.33	
<b>Disability/Disorder</b>						
Yes	1.36	1.25-1.48	< 0.001	1.33	1.22-1.44	< 0.001
No	1.0			1.0		
<b>Age of the aggressor</b>						
0-19 years old	1.0		0.004	1.0		0.288
20-59 years old	1.52	0.94-2.45		1.24	0.58-2.63	
60+ years old	1.75	1.08-2.82		1.39	0.66-2.94	
<b>Gender of the aggressor</b>						
Male	1.0		0.001	1.0		0.272
Female	0.94	0.84-1.06		1.15	0.94-1.40	
Both	1.19	1.07-1.32		1.14	0.92-1.41	
<b>Relationship with the victim</b>						
Son/Daughter	4.51	2.64-7.70	< 0.001	3.67	2.18-6.15	< 0.001
Partner	4.29	2.50-7.34		3.81	2.27-6.40	
Other relative	3.37	1.95-5.83		2.82	1.66-4.79	
Unknown	1.0			1.0		
<b>Suspected use of alcohol</b>						
Yes	1.18	1.06-1.30	0.002	1.09	0.96-1.25	0.202
No	1.0			1.0		

Variables	Gross analysis			Adjusted analysis		
	PR	95 % CI	p-value	PR	95 % CI	p-value
<b>Number of people involved</b>						
One	1.0	1.00-1.21	0.041	1.0	0.73-1.28	0.789
Two or more	1.10			0.96		
<b>Took place in the house</b>						
Yes	2.02	1.54-2.65	< 0.001	1.02	0.72-1.45	0.903
No	1.0			1.0		
<b>Period of the day</b>						
Morning/Afternoon	1.19	1.04-1.36	0.012	1.13	1.0-1.29	0.058
Night/Early morning	1.0			1.0		
<b>Area of occurrence</b>						
Urban	1.32	1.10-1.60	0.003	1.34	1.11-1.63	0.003
Rural	1.0			1.0		
<b>Motivated by intolerance</b>						
Yes	1.09	0.98-1.21	0.124	0.98	0.83-1.17	0.835
No	1.0			1.0		

Test: Poisson regression with a robust variance; PR: Prevalence Ratio.

Source: SINAN, Espírito Santo, Brazil, 2011-2018.

## Discussion

The objective of this study was to identify notified cases of repeated violence against older adults and its association with the characteristics of the victims, of the aggressor and of the aggression. It was observed that 50.1 % (95 % CI: 47.7-52.6) of the notified cases of violence against older adults between 2011 and 2018 in Espírito Santo, Brazil, presented a repeated history. This finding is similar to that found in the international literature (13), which shows a 52.3 % prevalence of a history of repeated violence and in a study carried out with 3,593 notified cases of violence against older adults in more than 500 Brazilian municipalities, in which a prevalence value of 53.6 % of revictimization was evidenced among the older adults studied (19).

Regarding the characteristics of the older adults associated with this problem, we found the repeated violence was frequent among people aged 80 years old or more. Old age is usually marked by conditions that compromise the independence and autonomy of the older adults, which can increase the work demand of their caregivers and result in increasing burden. This situation results in concern since, according to the literature studied, overloaded caregivers tend to harm the older adult more, especially when this burden is associated with stress and with their lack of preparation for care (1, 20).

In addition to that, regarding the older adults' health, it is noticed that repeated violence was more frequent among those who presented some disability or disorder. The literature shows

that the presence of disabilities or disorders is a risk factor strongly associated with the occurrence of violence against older adults (1, 9). The presence of disabilities and/or disorders frequently leads the older adult to dependence and vulnerability conditions, which demands more and more attention and care, and gradually increases the caregiver's workload. In this regard, and as showed in the literature, the caregivers' burden can be a factor that contributes not only to the primary occurrence of violence, but also to the increase in its chronic repetition (1).

Another point widely discussed in the literature is the proximity of the relationship between victim and aggressor, in which the studies show that the main perpetrators of the aggressions against the older adults belong to their family circle (1, 9). Corroborating this line of discussion, in this study higher frequencies of repeated violence were found among older adults who were assaulted by children and/or partners, and that the aggressions were generally committed by two or more people, similar to the results found in other studies (13, 16, 17) that also approached the revictimization of older adults and showed children and/or partners as the main aggressors.

The family environment, which originally should be seen as a refuge and as safety for older adults, is also often pointed out as a space that can be stressful for the caregiver, with children and partners playing this role without proper preparation, and often taking the frustrations of day-to-day life on the older adult (16, 20). In this scenario, violence tends to be chronic and constant, with a progressive increase in the frequency and severity of the aggressions, which can even come to cause physical injuries and result in hospitalization and death (12).

Consequently, it is perceived that the excess of tasks attributed to the family caregiver contributes in an excessive manner to their burden, especially when the older adult is not completely independent. Also, in addition to caring for the older adults, it is noticed that the responsibility of managing the cleaning of the house and the family's food often falls on the caregiver, among many other tasks common to the day-to-day organization of a house (21). In this regard, the association of repeated violence with the occurrence of abuse during the day is justified because such activities in this period tend to accumulate and can increase the levels of stress and burden in the caregiver.

Another characteristic observed in this study was the higher frequency of repeated violence against female older adults in urban areas. This finding corroborates with another study (22)

that found that most of the cases of violence perpetrated against women occurs in urban areas, which, according to the author, can be a consequence of the higher agglomeration of people in these areas when compared to rural areas, in addition to the ease of access to the health and security services, which allegedly could make the notification of this problem easier in these regions.

This scenario of discussion about repeated violence against older adults leads us to a reflection about institutional violence, in which the Government fails in its constitutional duty of protection and assistance to older adults (23). This failure is present both in the difficulty of the professionals in identifying and welcoming the older adult victim of violence and in the criminalization of the family aggressor dissociated from a social approach capable of supporting and training this family member to take care of the older adult (23).

In this sense, it is worth highlighting the important role of the health sector in preventing, identifying, confronting and combating violence against older adults, and especially in preventing the chronicity of this problem, which results from the increasing recurrence of abuse in this population. Among all the segments capable to act in this problem, health professionals are strategically positioned close to the families and the community, presenting greater possibilities of creating bonds of trust with the older adult and their families, which can contribute to the discussion and dissemination of this theme in society (14).

Thus, these professionals must be trained for this function and understand violence in all its nuances, complexities and multi-causalities. It is also necessary that these professionals know the entire care and protection network offered to victims of violence and their families since, only in this way will it be possible to promote a real confrontation of this problem in our society (3). Education and support programs for the aged population and support for family caregivers of these older adults are also worth to be mentioned, as they have effectively helped to reduce the recurrence of violence against older adults, in addition to having the potential to reduce even the primary occurrence of this problem (9, 13).

Finally, the results found in this study represent an important contribution for greater elucidation about repeated violence perpetrated against older adults and its associated factors, mainly for being a theme that still lacks further studies in the literature. However, some limitations must be considered, such as the secondary data analysis, the intrinsic under-notification of the in-

formation systems, and the cross-sectional nature of the study. However, it is important to highlight that measures were taken to mitigate such limitation: the database went through extensive qualification in order to reduce possible inconsistencies that could occur in secondary analysis of information systems databases, following the handbook created for notifications of this problem; despite the possibility of under-notification, the strong associations found only showed that they could be even more evident if the problem was properly notified and, despite their impossibility of establishing a casual relation, cross-sectional studies are essential in the scientific community for presenting a high descriptive potential and analytical simplicity, which enables greater understanding of the theme under study.

## Conclusions

The data presented showed a high frequency of repeated violence experienced by older adults and which characteristics of the

victim, aggressor, and occurrence can make the older adult more vulnerable to experience repeated episodes of violence. These are findings that reflect the need for providing care to this long-lived population, as well as the importance of actions aimed at the early detection of violence and at adequate assistance to the victims and the family aggressors in order to avoid the perpetuation of aggressions in the older adults' routine and, consequently, their chronicity, in addition to promoting the necessary support for the families to take care of the older adults.

It is important to highlight that, despite the fact that studies related to violence against older adults are ever-increasing, especially in recent years, further deepening and diffusion of the analyses is still needed to aid in the understanding of the factors associated with the chronicity of this problem, so that it is possible to prevent and properly confront violence against older adults.

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