

CARACTERIZAÇÃO SOCIODEMOGRÁFICA E DE SAÚDE DE PESSOAS IDOSAS EM SITUAÇÃO DE VIOLÊNCIA

CARACTERIZACIÓN SOCIODEMOGRÁFICA Y DE SALUD DE PERSONAS MAYORES EN SITUACIÓN DE VIOLENCIA

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# **ABSTRACT**

**Introduction:** Aging is a natural process characterized by physical changes. Violence against elderly individuals is a public health challenge that demands specific policies for prevention, detection, and protection of victims, requiring both collective and individual investment.

**Objective:** This study aimed to analyze the association between sociodemographic and health characteristics and the occurrence of violence among older adults residing in Long-Term Care Institutions (LTCIs).

Methods: This cross-sectional study used a quantitative approach and corresponds to a segment of the longitudinal, multicenter project from the International Research Network on Vulnerability, Health, Safety, and Quality of Life of the Elderly, conducted across Brazil, Portugal, Spain, and France. The study included elderly individuals receiving Primary Health Care (PHC) services and residing in Santa Cruz-RN, as well as those living in LTCIs in Natal-RN, Brazil.

**Results:** The majority of respondents were aged 80 or older (52%), with 20.6% reporting experiences of violence (p = 0.004). Over half (63.4%) were at risk, and among these, 29.8% were exposed to violence (p < 0.001). Regarding self-reported conditions, 32.2% had chronic illnesses, 24.1% experienced functional decline, and 27.0% reported depression, all of which were associated with exposure to violence (p < 0.001).

**Conclusion:** There were significant associations between sociodemographic and clinical characteristics and the occurrence of violence among institutionalized elderly individuals. These findings underscore the importance of research for understanding and preventing violence and for developing effective public policies. The study highlights the critical role of integrating scientific research with clinical practice to improve outcomes for this vulnerable population.

**Keywords:** Homes for the Aged; Primary Health Care; Violence.

# **RESUMO**

**Introdução:** O envelhecimento é um processo natural marcado por mudanças fisiológicas. A violência contra pessoas idosas é um desafio de saúde pública que requer políticas específicas para prevenção, deteção e proteção das vítimas, demandando investimentos coletivos e individuais.

**Objetivo:** Analisar a associação entre as características sociodemográficas e de saúde e a ocorrência de violência entre pessoas idosas residentes em Instituições de Longa Permanência de Idosos.

**Métodos:** Estudo de natureza transversal com abordagem quantitativa, que corresponde um recorte do projeto longitudinal e multicêntrico da Rede internacional de pesquisa sobre vulnerabilidade, saúde, segurança e qualidade de vida do idoso: Brasil, Portugal, Espanha e França. Foi realizado com a população idosa atendida pela Atenção Primária à Saúde residentes em Santa Cruz-RN e em Instituições de Longa Permanência de Idosos em Natal-RN. **Resultados:** A maioria dos entrevistados têm 80 anos ou mais (52%), com 20,6% relatando violência (p = 0,004). Mais da metade (63,4%) estavam em situação de risco, e 29,8% desses estavam em situação de violência (p < 0,001). Com relação às doenças auto referidas, declínio funcional e depressão, 32,2%, 24,1%, 27,0%, respectivamente, estavam em situação de violência (p < 0,001).

**Conclusão:** Houve associações entre características sociodemográficas e clínicas e violência entre pessoas idosas institucionalizadas, evidenciando a importância da pesquisa na compreensão e prevenção da violência, bem como na formulação de políticas públicas eficazes, ressaltando a integração entre pesquisa científica e prática clínica.

**Palavras-chave:** Atenção Primária à Saúde; Instituição de Longa Permanência para Idosos; Violência.

# **RESUMEN**

Introducción: El envejecimiento es un proceso natural marcado por cambios fisiológicos. La violencia contra las personas mayores es un desafío de salud pública que requiere políticas específicas para la prevención, detección y protección de las víctimas, demandando inversiones colectivas e individuales.

**Objetivo:** Analizar la asociación entre las características sociodemográficas y de salud y la ocurrencia de violencia entre personas mayores residentes en Instituciones de Larga Permanencia para Personas Mayores.

**Métodos:** Estudio transversal con enfoque cuantitativo, que corresponde a una sección del proyecto longitudinal y multicéntrico de la Red Internacional de Investigación sobre Vulnerabilidad, Salud, Seguridad y Calidad de Vida de las Personas Mayores: Brasil, Portugal, España y Francia. Se realizó con la población mayor atendida por la Atención Primaria de Salud, residentes en Santa Cruz-RN y en Instituciones de Larga Permanencia para Personas Mayores en Natal-RN.

**Resultados:** La mayoría de los entrevistados tienen 80 años o más (52%), con un 20,6% reportando violencia (p = 0,004). Más de la mitad (63,4%) estaban en situación de riesgo, y el 29,8% de ellos estaban en situación de violencia (p < 0,001). En relación con las enfermedades autoinformadas, el deterioro funcional y la depresión, el 32,2%, 24,1% y 27,0%, respectivamente, estaban en situación de violencia (p < 0,001).

Conclusión: Hubo asociaciones entre características sociodemográficas y clínicas y violencia entre personas mayores institucionalizadas, evidenciando la importancia de la investigación para la comprensión y prevención de la violencia, así como para la formulación de políticas públicas eficaces, destacando la integración entre la investigación científica y la práctica clínica.

Descriptores: Atención Primaria de Salud; Hogares para Ancianos; Violencia.

# INTRODUCTION

The aging process is inherent to all human beings, marked by physiological and mental changes that unfold over a lifetime<sup>(1)</sup>. According to the 2022 demographic census, Brazil is experiencing an unprecedented demographic aging phenomenon, reflected in a significant increase in the proportion of people aged 65 and older. This trend indicates an acceleration in the aging patterns of the Brazilian population<sup>(2)</sup>.

The World Health Organization (WHO) defines violence as any act involving physical force, threats, or power dynamics intentionally applied against an individual, group, or community, with potential consequences that include physical, psychological, sexual, and social harm, as well as deprivation, neglect, and omission<sup>(3)</sup>. Although violence is fundamentally a sociological phenomenon, it also represents a public health issue, requiring the development of policies, laws, and specialized services to prevent, detect, address, and protect victims necessitating both individual and collective actions and investments<sup>(4)</sup>.

Violence poses substantial challenges for healthcare, criminal justice, and social assistance systems. Various forms of violence are closely associated with social determinants, cultural and gender norms, unemployment, income inequality, and limited educational attainment, among other factors. From this perspective, a systematic review highlighted that violence against older adults is a multifaceted phenomenon influenced by diverse factors, including age, gender, marital status, education level, income, family ties, social support networks, mental health conditions, depression, and dependence on daily living activities (DLAs), thus constituting a major public health issue<sup>(5)</sup>.

Long-Term Care Facilities (LTCFs) have become essential in providing care and activities that aim to preserve health and promote autonomy and quality of life for elderly individuals<sup>(6)</sup>. The global rise in LTCFs is driven by various factors, including functional dependence among older adults, financial constraints within families, and evolving family structures<sup>(7)</sup>. However, ensuring quality in these services necessitates adequate public investment.

A study conducted in LTCFs in northeastern Brazil revealed that, in some cases, older adults are admitted by judicial order as a protective measure, potentially due to experiences of physical, psychological, or neglectful abuse<sup>(8)</sup>. This violence, often perpetrated by family members or caregivers, may stem from conflicting personal interests, caregiver stress, psychological challenges, or financial issues. However, the root causes of such violence often go unaddressed, with limited specialized services available to investigate them<sup>(9)</sup>.

This study aimed to analyze the association between sociodemographic and health characteristics and the occurrence of violence among older adults residing in LTCFs.

# MATERIALS AND METHODS

This cross-sectional study with a quantitative approach represents a segment of the longitudinal and multicenter project by the International Research Network on Vulnerability, Health, Safety, and Quality of Life (QoL) of the Elderly, which spans countries such as Brazil, Portugal, Spain, and France.

The study was conducted with elderly individuals receiving Primary Health Care (PHC) in Santa Cruz and those residing in LTCFs in Natal, both cities located in Rio Grande do Norte, Brazil. Sampling was carried out probabilistically, with the sample calculation tailored for estimated finite populations of elderly individuals served by PHC in both settings.

The sample was calculated based on an estimated elderly population of 125,630 individuals, with a confidence level of 95% and a 5% margin of error. This resulted in an initial sample of 384 participants, later increased by 10% to account for possible attrition, yielding a total of 423 respondents (223 in Natal and 200 in Santa Cruz, RN).

Inclusion criteria were: age 60 or older and registration with or use of a primary health care unit, or residence in an LTCF. Exclusion criteria included elderly individuals with clinical conditions that prevented participation in the study, as assessed by the researcher or through information from PHC or LTCF professionals.

Data were collected using the Elderly Health Record Book (sociodemographic and health data), the Hwalek-Sengstock Elder Abuse Screening Test (HS-EAST), and the Conflict Tactics Scales (CTS). Sociodemographic and health characteristics were extracted from the Elderly Health Record Book<sup>(10)</sup> and analyzed according to gender (male; female), age range (60 to 79 years;  $\geq$  80 years), race/color (white; non-white), literacy (illiterate; literate), polypharmacy ( $\geq$  5 medications) (no; yes), and self-reported illnesses (no; yes).

The HS-EAST was used to assess the risk of violence, adapted for the Brazilian population  $^{(11)}$ . The HS-EAST comprises items that address aspects such as the risk of psychological and physical abuse, violation of personal rights, isolation, or financial abuse by third parties. The instrument consists of 15 dichotomous items, with one point assigned for each affirmative response, except for items 1, 6, 12, and 14, where the point is given for a negative response. A score  $\geq$  3 points was considered at risk of violence.

The Conflict Tactics Scales (CTS-1), adapted for use in Brazil<sup>(12)</sup>, was used to identify violence experienced by older adults. This instrument comprises 19 questions assessing strategies for managing conflict, including argumentation, verbal aggression, and physical aggression. A positive response to any item was considered indicative of violence.

Data collection took place from July to December 2023, conducted by a previously trained multidisciplinary team of researchers, collaborators, graduate students, and undergraduates.

Eligible participants were fully informed about the study and invited to sign the Informed Consent Form (ICF). The multicenter project was approved by the Research Ethics Committee of Onofre Lopes University Hospital at the Federal University of Rio Grande do Norte (approval no. 4267762, CAAE: 36278120.0.1001.5292).

Data processing was conducted using the Statistical Package for the Social Sciences (SPSS) version 23.0. Descriptive analyses included distributions of absolute and relative frequencies for categorical variables. To assess associations between sociodemographic and clinical variables with functional capacity, depression, and fall risk, Pearson's chi-square test and Fisher's exact test were applied. All analyses were conducted with a significance level of 5% and 95% confidence intervals.

# **RESULTS**

The sociodemographic profile of older participants experiencing violence, as shown in Table  $1^{3}$ , indicates that the majority of respondents were aged 80 years or older (52%), with 20.6% of this group reporting experiences of violence, a statistically significant finding (p = 0.004). In terms of educational level, most older adults were literate (63.8%), of whom 17.0% reported being victims of violence, with statistical significance (p < 0.001).

The health profile of institutionalized older adults according to the occurrence of violence, as presented in Table  $2^{3}$ , shows that 63.4% of the surveyed older adults were at risk, with 29.8% of them experiencing violence (p < 0.001). Regarding falls and fall risk, 14.7% of those experiencing violence had suffered a fall, and 25.3% were at risk of falling (p < 0.001). Additionally, when analyzing polypharmacy among older adults, it was found that while most of those not taking multiple medications simultaneously were not experiencing violence, 19.9% of those with polypharmacy were (p < 0.001).

In terms of self-reported illnesses, functional decline, and depression, 32.2%, 24.1%, and 27.0% of the older adults surveyed, respectively, had these health issues and were also identified as being in a situation indicative of violence (p < 0.001). Examining the nutritional status of these individuals, 26.0% of those at nutritional risk and 22.2% classified as at risk of sarcopenia were also experiencing violence (p < 0.001) (Table  $2^n$ ).

Further analysis showed that 70.7% of older adults were at risk for functional decline, of whom 29.1% were also experiencing violence (p < 0.001). Concerning frailty and vulnerability, 74.9% and 59.6% of the sample were classified with these conditions, respectively; among those experiencing violence, 31.0% were categorized as frail, and 15.6% as vulnerable (p < 0.001). In terms of quality of life (QoL), it was observed that 31.0% of individuals with poorer QoL were also in a situation of violence (p < 0.001) (Table  $2^n$ ).

# DISCUSSION

The findings of this study primarily demonstrated an association between age, educational level, and the prevalence of violence among older adults. In this context, there was an observed tendency for cases of violence to increase with age within the studied group, while older adults with higher educational levels exhibited a lower incidence of violence. Additionally, regarding clinical aspects, there was an association between various indicators of declining health and the occurrence of violence, a scenario that could contribute to decreased quality of life (QoL), impaired functionality, and other essential factors necessary to maintain autonomy in older adults.

Violence against older adults is understood as any act causing suffering and resulting in a decreased QoL, as well as an elevated risk of physical and emotional illness in this population<sup>(13)</sup>. Identifying the sociodemographic and clinical profiles of older adults vulnerable to such conditions is therefore essential, as it allows for the implementation of measures that ensure their well-being and protect their rights in all societal spheres<sup>(14)</sup>.

Violence within long-term care institutions can stem from several factors, including a lack of adequate public policies and neglect in institutional care practices<sup>(15)</sup>. Institutionalization itself may be perceived as an act of violence, as many older adults are placed in these facilities against their will, often following prior experiences of domestic violence. This perspective is explored in various studies<sup>(16,15)</sup>, which highlight the complexity and ramifications of violence in long-term care settings.

Our results are consistent with trends observed in previous studies<sup>(17,18)</sup>, indicating that older adults who are more susceptible to personal rights violations or direct abuse, as well as those exposed to potentially abusive situations, tend to be of more advanced age. Moreover, when analyzing risk factors for violence, it becomes evident that unfavorable sociodemographic and clinical factors – such as lower educational levels, low income, increased frailty, and diminished functional capacity – contribute to greater vulnerability, as documented in other studies<sup>(19,5)</sup>.

Among the health issues that can harm older adults and compromise their well-being, falls represent a major concern, as they significantly reduce functionality and mobility, leading to dependency and hindering active and healthy aging<sup>(20)</sup>. In this study, a large proportion of the sample reported having experienced falls or being at risk of falls; additionally, some of these individuals were in situations of violence. Beyond biological factors that increase the risk of falls, neglect by caregivers or family members may also contribute to fall risk, which constitutes a form of violence<sup>(21)</sup>.

In addition to falls, the concurrent use of multiple medications, or polypharmacy, is common among older adults. While appropriately indicated polypharmacy may not always result in negative outcomes, the likelihood of clinical deterioration due to drug interactions, adverse reactions, and decreased organ function (such as liver and kidney) increases with the number of medications<sup>(22)</sup>.

In this study, most of the sample reported taking fewer than five medications; however, a significant portion of those on multiple medications were also experiencing violence. A cross-sectional study investigating the prevalence and factors associated with excessive medication use found that this practice is linked to prevalent or self-reported chronic diseases, hospitalization, and potentially inappropriate medication use, creating a state of frailty that renders older adults more vulnerable to abuse<sup>(23)</sup>.

Cognitive decline, a factor that precedes loss of autonomy in older adults, has been associated with unfavorable sociodemographic characteristics, such as being over 80 and having low educational attainment<sup>(24)</sup>. This profile, which was also observed in this study, is linked to greater vulnerability to violations<sup>(5)</sup>.

Depression and emotional illness, conditions frequently observed in this study, are known to be prevalent among institutionalized older adults. An observational, analytical, cross-sectional study found that 51.35% of institutionalized older adults exhibited depressive symptoms, as measured by the Geriatric Depression Scale<sup>(25)</sup>. The *Cadernos de Atenção Básica* from the Brazilian Ministry of Health describes depression as a pathological process with severe impacts on older adults' lives; without adequate treatment, the prognosis worsens, leading to increased physical, social, and functional impairment, ultimately reducing QoL<sup>(26)</sup>. Additionally, studies have found that experiencing stress and having depressive symptoms increases the risk of personal rights violations and potentially abusive situations<sup>(18)</sup>.

In this study, analysis of data on older adults at nutritional risk who were also experiencing violence showed findings consistent with the literature. For example, a cross-sectional study of 159 community-dwelling older adults found that those experiencing violence – primarily psychological – were at nutritional risk, with abuse adversely impacting nutritional status<sup>(27)</sup>. Regarding sarcopenia risk, which exacerbates frailty, research links this condition with poor health outcomes in older adults and associates it with abuse and falls<sup>(28)</sup>.

Data analysis regarding older adults experiencing vulnerability, frailty, and low QoL, as well as exposure to violence<sup>(29)</sup>, suggests that institutionalized individuals face a collective living dynamic marked by social isolation. This situation is associated with a notable decline in functional capacity, accompanied by high rates of mental and physical health issues, contributing to frailty and a reduction in QoL.

In 2003, Law 10.741, known as the Statute of the Elderly, was enacted to prevent neglect, discrimination, violence, or oppression against older adults, mandating that suspected or confirmed cases of violence be reported to the relevant authorities. Additionally, Law 12.461/2011 requires health services to report cases of violence against older adults to better understand this issue, organize services, and strengthen care networks<sup>(31)</sup>.

The inclusion of violence as a condition for mandatory reporting under Ordinance MS/GM 104/2011 also represents significant progress in addressing this issue in Brazil<sup>(32)</sup>. Reporting cases of domestic violence by health professionals plays a crucial role in the epidemiological understanding of violence and the implementation of targeted measures. It is therefore essential for healthcare professionals to fulfill both ethical and legal responsibilities in reporting violence<sup>(33)</sup>.

# **CONCLUSION**

The findings of this study underscore the considerable vulnerability of the elderly population, revealing a high prevalence of risk and violence among participants. The association between violence and a range of health conditions – such as falls, polypharmacy, self-reported diseases, functional decline, sarcopenia, and low quality of life (QoL) – emphasizes the complexity and severity of this issue. These findings highlight the need for comprehensive and multifaceted interventions to protect older adults from violence and enhance their QoL by addressing physical, emotional, and social health dimensions.

In scientific research, studies such as this play a critical role in identifying and understanding the factors contributing to violence against older adults, thereby supporting the development of more effective public policies and intervention strategies. Furthermore, the mandatory reporting of domestic violence cases by healthcare professionals, supported by legislation such as the Statute of the Elderly, represents a significant advancement in addressing this issue. Integrating scientific research with clinical practice is essential for addressing this complex, multifaceted problem.

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AT: Conceptualization, writing - original draft, writing - review & editing.

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RS: Conceptualization, writing - review & editing, visualization.

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TN: Methodology, supervision, validation. All authors have read and agreed with the published version of the manuscript.

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Table 1 – Sociodemographic characterization of institutionalized elderly individuals according to their situation regarding violence. Natal, 2024.  $^{\kappa}$ 

Sociodemographic characteristics		In a situation of violence			
		Yes n (%)	No n (%)	Total n (%)	p-value
Gender	Female	100 (23.6)	196 (46.3)	296 (70.0)	0.647
	Male	40 (9.5)	87 (20.6)	127 (30.0)	
Age Range	80 years or older	87 (20.6)	134 (31.7)	221 (52.2)	0.004
	60 to 79 years	53 (12.5)	149 (35.2)	202 (47.8)	
Race	Non-white	84 (19.9)	162 (38.3)	246 (58.2)	0.589
	White	56 (13.2)	121 (28.6)	177 (41.8)	
Education	Literate	72 (17.0)	198 (46.8)	270 (63.8)	< 0.001
	Illiterate	68 (16.1)	85 (20.1)	153 (36.2)	

Table 2 – Caracterização de saúde de pessoas idosas institucionalizadas segundo a ocorrência de violência. Natal, 2024. KRR

		In a situati	Total n (%)	p-value	
Clinical characteristics		Yes n (%)			No n (%)
Risk of violence	Yes	126 (29.8)	142 (33.60)	268 (63.4)	< 0.001
	No	14 (3.3)	241 (33.3)	155 (36.6)	
Falls	No	78 (18.4)	108 (25.5)	186 (44.0)	0.001
	Yes	62 (14.7)	175 (41.4)	237 (56.0)	
Fall risk	Yes	107 (25.3)	152 (35.9)	259 (61.2)	< 0.001
	No	33 (7.8)	131 (31.0)	164 (38.8)	
Polypharmacy	Yes	84 (19.9)	100 (23.6)	184 (43.5)	< 0.001
	No	56 (13.2)	183 (43.3)	239 (56.5)	
Self-reported diseases	Yes	136 (32.2)	245 (57.9)	381 (90.1)	< 0.001*
	No	4 (0.9)	38 (9.0)	42 (9.9)	
Cognitive decline	Yes	102 (24.1)	82 (19.4)	184 (43.5)	< 0.001
	No	38 (9.0)	201 (47.5)	239 (56.5)	
Depression	Yes	114 (27.0)	86 (20.3)	200 (47.3)	< 0.001
	No	26 (6.1)	197 (46.6)	223 (52.7)	
Nutritional risk	Yes	110 (26.0)	131 (31.0)	241 (57.0)	< 0.001
	No	30 (7.1)	152 (35.9)	182 (43.0)	
Sarcopenia risk	Yes	94 (22.2)	135 (31.9)	229 (54.1)	< 0.001
	No	46 (10.9)	148 (35.0)	194 (45.9)	
Risk of functional	Yes	123 (29.1)	176 (41.6)	299 (70.7)	< 0.001
decline	No	17 (4.0)	107 (25.3)	124 (29.3)	
Frailty	Yes	131 (31.0)	186 (44.0)	317 (74.9)	< 0.001
	No	9 (2.1)	97 (22.9)	106 (25.1)	
Vulnerability	No	74 (17.5)	97 (22.9)	171 (40.4)	< 0.001
	Yes	66 (15.6)	186 (44.0)	252 (59.6)	
Quality of life	Worse QoL	131 (31.0)	206 (48.7)	337 (79.7)	< 0.001
	Better QoL	9 (2.1)	77 (18.2)	86 (20.30)	

<sup>\*</sup>Fisher's exact test.