ORIGINAL ARTICLE *DOI: 10.4025/cienccuidsaude.v18i1.45043*

VIOLENCE AGAINST THEELDERLY PEOPLE: PREDICTORS AND SPACE DISTRIBUTION[1]

Lara Arruda Lacerda Soares*
Flavia Aparecida Dias**
Gianna Fiori Marchiori***
Nayara Cândida Gomes****
Fabrício Anibal Corradini*****
Darlene Mara dos Santos Tavares******

ABSTRACT

Objectives: to verify the prevalence of violence in the elderly people in the last 12 months; to describe the sociodemographic and economic characteristics of these people according to the type of violence suffered; to verify the factors associated with violence and to identify clusters of violence against the elderly individuals in the city of Uberaba, Minas Gerais. **Methods**: This was a cross-sectional and quantitative study carried out with 581 elderly individuals from the community of Uberaba, Minas Gerais. Statistical analyzes were performed: descriptive and multiple logistic regression (p≤0.05). **Results:** Physical and/or psychological violence obtained higher percentages among those with 15 years of schooling and who lived with children. The youngest age was associated with physical and/or psychological violence. The largest clusters were in the southeast region of the municipality. **Conclusion:** Younger elders suffer more episodes of physical and/or psychological violence, as well as those with less schooling, who live with their children and in the southeast region of the municipality.

Keywords: Elderly people. Elder abuse.Violence. Spatial distribution of population.

INTRODUCTION

Violence against the elderly people has been considered an important public health issue due to the negative impact on the physical and/or psychological health[1]; for their veiled character, as well as to the fear of the elderly person in revealing episodes of abuse, especially when they occur within the family[2].

It is noteworthy that the scientific literature has identified a considerable percentage of violence against the elders[3,4]. However, there are still different estimates in regard to their prevalence due to the methodological diversity between investigations, definitions of violence and the mode of conducting the assessment[2]. This scenario is corroborated in a literature review of national and international studies, which showed variations in the prevalence of violence, being: psychological and/or verbal (0.3% to 14.2%); only psychological (21.9% to 32.9%) and physical (0.2% to 4.3%)[5].

In Brazil, a research conducted in a primary care service in Brasília-DF found that 60% of the elderly people reported having suffered at least one type of violence[3]. In another national survey based on compulsory reporting of the Information and Notification Aggravations System (Sistema de Informações e Agravos de Notificação - SINAN), physical violence was identified in 30.9% of the female elders and 32.1% in the male sex[4].

In relation to international studies, documental analysis performed with elderly people in New York found that 1.9% were victims of emotional violence and 1.8% of physical violence[1]. In this context, it is essential to evaluate and to trace the factors related to violence considering the lack of population-based investigations at the national level[2].

Regarding the factors associated with the types of violence, it was identified, in a study with SINAN data, that physical violence was significantly more frequent in males (PR = 0.82), in the 60-69 age group, outside of the domicile, practiced by aggressors who were not children and suspected of drinking alcohol; whereas the psychological one was more frequent among the elderly women (PR = 2.17), at home, inflicted by the children, with suspected use of alcoholic

*Academic student. Federal University of Triângulo Mineiro (UFTM). Uberaba, MG, Brazil. E-mail: larinha702@gmail.com ORCID iD: 0000-0003-0980-3961
**Professor. PhD, UFTM. Uberaba, MG, Brazil. E-mail: flaviadias_ura@yahoo.com.br ORCID iD: 0000-0001-6417-5748.
***Doctoral student. Master, UFTM. Uberaba, MG, Brazil. E-mail: gianna_fiori@yahoo.com.br ORCID iD: 0000-0001-6363-0059.
****Doctoral student. Master, UFTM. Uberaba, MG, Brazil. E-mail: nayara.gomes06@yahoo.com.br ORCID iD: 0000-0001-9743-9850.
*****Professor. PhD, UFTM. Uberaba, MG, Brazil. E-mail: f_coradini@yahoo.com.br. ORCID iD: 0000-0002-3960-8254.
******Professor. PhD, UFTM. Uberaba, MG, Brazil. E-mail: darlene.tavares@uftm.edu.br ORCID iD: 0000-0001-9565-0476.

beverage and in a chronic way[6]. In this context, there is a need to identify the most predisposing areas of these events, and no studies are found in this area.

When considering the increase in the number of people reaching advanced ages, it is essential that the impact of the occurrence of violence against the elderly people is recognized as a target for investigations and interventions[6].

The correct identification of the type of violence reported by the elderly individuals and the characteristics of greater vulnerability can subsidize actions for the targeting of coping and prevention interventions[6].

In addition, the Family Health Strategy (FHS) team, which is fundamental in home care, represents an important space for assessing health conditions and mapping situations of greater vulnerability[7], such as violence.

In this way, the objective is to contribute to broaden the knowledge on the subject and to assist in the foundation of public policy actions. This study aims: to verify the prevalence of violence among the elderly people in the last 12 months; to describe the sociodemographic and economic characteristics of the elderly people according to the type of violence suffered; to verify the factors associated with violence and to identify clusters of violence against the elderly individuals in the city of Uberaba, Minas Gerais.

METHODOLOGY

Cross-sectional study, with a quantitative approach, developed in the urban area of the city of Uberaba, Minas Gerais. For the selection of the population of the urban area, the sampling by conglomerate in multiple stages was used. In all, 767 elderly people were interviewed, 155 presented cognitive decline and 31 did not complete the evaluation of fragility phenotype components, reaching a final sample of 581 elders.

The inclusion criteria were: to be 60 years-old or older and to reside in the urban area of the city of Uberaba (MG). We excluded the elderly people with cognitive decline evaluated by the Mini Mental State Examination (MMSE); who presented severe sequele of stroke with localized loss of strength and aphasia; Severe or unstable Parkinson's disease with severe motor, speech or affectivity impairments, as it would make it impossible to carry out evaluations. For the MMSE, the cutoff points considered were: ≤ 13 for illiterates, ≤ 18 for average schooling (one to 11 years) and ≤ 26 for high schooling (over 11 years) [8].

The data collection was performed at the elderly people's home, from March to June of 2016, through home interviews conducted by ten interviewers who underwent training, including training on ethical questions of the research. Violence data were measured by the Conflict Tactics Scales (CTS), a translated and validated version in Brazil[9], which consists of an instrument composed of 19 issues that encompass three tactics to deal with conflicts and to capture indirectly a situation of family violence. Tactics deal with argumentation, verbal aggression or psychological violence, and physical aggression or physical violence[9]. It was considered positive case of physical and/or psychological violence the elderly person who reported having been victim of at least one of the items that compose the subscales of verbal aggression (questions 4 to 9) and physical (questions 10 to 19) [9]. For the collection of sociodemographic and economic data, the instrument prepared by the researchers of the Research Group on Public Health of the Federal University of the Triângulo Mineiro (UFTM) was used.

In the present study, in addition to sociodemographic and economic factors, physical and/or psychological violence, we also considered as possible factors: functional capacity for basic daily life activities (BDLA) and instrumental daily life activities (IDLA), measured by Katz Index [10] and the Lawton and Brody Scale [11], respectively; the fragility syndrome verified by the five components of the frailty phenotype proposed by Fried et al.[12]: unintentional weight loss, decreased muscle strength, self-report of exhaustion and/or fatigue, slow speed of gait and low level of physical activity. It should be noted that the elderly person who presented impairment in three or more of these items were classified as fragile and those with one or two, as pre-fragile; those with no impairment in all components of the fragility syndrome were considered robust or non-fragile [12]; and the physical performance

measured by the Short Physical Performance Battery (SPPB) adapted to the Brazilian culture[13].

Among the variables of this study there are the sociodemographic and economic variables: sex (female, male), age group (60 ├-70 years-old, 70 ├-80 years-old, 80 years-old or more), marital status (with partner and without partner)); schooling (no schooling, 1 ├-5, 5 or more); housing arrangement (only with professional caregiver, spouse, with others of their generation, with children, with grandchildren, with daughter-in-law or son-in-law, others) and individual monthly income in minimum salaries (no income; <1; 1; 1 a 3; 4 a 5; > 5); the clinics: functional capacity for BDLA and IDLA (dependent and independent); condition of fragility (pre-fragile/fragile and non-fragile) and physical performance (inability/low and moderate/good); and violence (yes and no, type of violence).

An electronic database was built in the Excel® program, with the data collected being processed in a microcomputer by two people, in double entry, for later verification of the existence of duplicate records, as well as different names between the two databases. When inconsistent data were observed, these were verified in the original interview and the correction was performed. The database was imported into the software "Statiscal Package for Social Sciences" (SPSS) version 17.0 for analysis.

The prevalence rate, first objective, was calculated according to the formula: number of cases at a given location/time/period.10^n/Population of the same location and period. To describe the sociodemographic and economic characteristics, according to the type of violence suffered, the data were submitted to univariate analysis with measures of absolute and relative frequency. In order to verify the factors associated with physical and/or psychological violence, a bivariate analysis was carried out for exploratory purposes, and sociodemographic variables were considered as predictors: gender (male or female), age group (in years), marital status (with or without income), housing arrangement (living with someone or living alone) and clinics: functional capacity for BDLA and IDLA (dependent or independent), condition of fragility (not fragile or pre-fragile/fragile) and physical performance (inability/low or moderate/good). The variables were inserted in the multiple logistic regression model, being considered a 95% confidence interval and a level of significance of $p \leq 0.05$.

To identify the clusters of violence against the elderly people of Uberaba, Minas Gerais, the programs MapInfo Professional version 9.5 and Terraview version 3.3.1 were used. A georeferenced database for spatialization of data was built using the Geographic Information Systems (GIS) tools by the ArcGis application version 10.2. The intensity of the events was estimated by Kernel estimation, with an adaptive radius of the quartic function. The maps generated for each event were submitted to reclassification processes, *reclassify*, and followed by multi-criteria analysis, *weigthted overlay*, in order to overlap the different events and their common occurrence area. The planialtimetric survey of the urban area of Uberaba was used like base map for definition and location of the events; four samples were excluded due to the incompatibility of the geographical coordinates. It is noteworthy that all the products generated were adjusted to the same horizontal datum, SIRGAS 2000, and the coordinates in Universal Transverse Mercator Projection (UTM).

The project was approved by the Human Research Ethics Committee of UFTM, protocol number 493.211. After the consent of the elderly people and the signing of the Informed Consent Term, the interview was conducted.

RESULTS

The prevalence of physical and/or psychological violence was 7.7%; it is highlighted that 7.7% presented psychological violence and 2.1%, physical.

It was verified that, regardless of the type of violence, the percentage was higher among the elderly women, 60 ├-70 years-old, with no partner and with individual monthly income up to a minimum wage. Physical and/or psychological violence and psychological violence were higher among those elders with 1 ├-5years of schooling and who live with

children; and physical violence among the elderly people with five or more years of study and living alone, Table 1. Table 1 shows the distribution of the elderly people in the community of Uberaba (MG) regarding the type of violence, according to sociodemographic and economic variables.

Table 1. Distribution of the elderly people regarding physical and psychological violence according to sociodemographic and economic variables and the type of violence, Uberaba, Minas Gerais, Brazil, 2016.

Variables	Physical and/or Psychological violence		Physical violence		Psychological Violence	
	Yes	No	Yes	No	Yes	No
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Gender						
Female	35 (8,8)	361 (91,2)	10 (2,5)	386 (97,5)	35 (8,8)	361 (91,2)
Male	10 (5,4)	175 (94,6)	2 (1,1)	183 (98,9)	10 (5,4)	175 (94,6)
Age group						
60 ├70	27 (10,5)	229 (89,5)	9 (3,5)	247 (96,5)	27 (10,5)	229 (89,5)
70 ├80	13 (5,6)	218 (94,4)	2 (0,9)	229 (99,1)	13 (5,6)	218 (94,4)
80 or older	5 (5,3)	89 (94,7)	1 (1,1)	93 (98,9)	5 (5,3)	89 (94,7)
Marital status						
Without partner	23 (7,6)	282 (92,4)	6 (2,0)	299 (98,0)	23 (7,6)	282 (92,4)
With partner	22 (8,0)	254 (92,0)	6 (2,2)	270 (97,8)	22 (8,0)	254 (92,0)
Schooling (in years)						
No schooling	6 (6,6)	85 (93,4)	0 (0)	91 (100,0)	6 (6,6)	85 (93,4)
1 ├5	14 (10,6)	118(89,4)	3 (2,3)	129 (97,7)	14 (10,6)	118(89,4)
5 or more	25 (7,0)	333 (93,0)	9 (2,5)	349 (97,5)	25 (7,0)	333 (93,0)
Living arrangement						
Living alone	4 (3,4)	112 (96,6)	1 (9,0)	115 (99,1)	4 (3,4)	112 (96,6)
With care professional	-	1 (100,0)	-	1 (100,0)	-	1 (100,0)
With partner	6 (4,6)	124 (95,4)	1 (8,0)	129 (99,2)	6 (4,6)	124 (95,4)
With others of his/her generation	0	10 (100,0)	-	10 (100,0)	-	10 (100,0)
With children	6 (7,3)	76 (92,7)	-	82 (100,0)	6 (7,3)	76 (92,7)
With grandchildren	-	14 (100,0)	-	14 (100,0)	-	14 (100,0)
With daughter-in-law or son-in-law	-	0	-	8 (100,0)	-	-
Others	29 (12,7)	199 (87,2)	10 (4,5)	210 (95,4)	29 (12,7)	199 (87,2)
Individual income(minimum wage)						
No income	5 (9,3)	49 (90,7)	2 (3,7)	52 (96,3)	5 (9,3)	49 (90,7)
<1	-	10 (100,0)	-	10 (100,0)	-	10 (100,0)
1	20 (8,0)	229 (92,0)	5 (2,0)	244 (98,0)	20 (8,0)	229 (92,0)
1 to3	13 (6,0)	202 (94,0)	3 (1,4)	212 (98,6)	13 (6,0)	202 (94,0)
4 to 5	7 (20,6)	27 (79,4)	2 (5,9)	32 (94,1)	7 (20,6)	27 (79,4)
> 5	-	19 (100,0)	-	19 (100,0)	-	19 (100,0)

Physical and/or psychological violence was associated with younger age (p=0.024). Table 2 shows the final model of multiple logistic regression..

Table 2. Final model of multiple logistic regression for the variables associated with physical and/or psychological violence among the elderly people in Uberaba, Minas Gerais, Brazil, 2016.

	Physicaland/or Psychological Violence		
	OR*	**IC****	***p****
Gender			
Male	1		
Female	1,498	0,675-3,326	0,321
Age group			
In years	0,943	0,895-0,992	**0,024***
Schooling			
In years of study	0,955	0,879-1,038	0,284
Marital status			
Without partner	1		
With partner	0,812	0,390-1,693	0,579
Living arrangement			
Living alone	1		
Living with someone	2,824	0,922-8,645	0,069
Income			
Without income	1		
With income	1,014	0,354-2,904	0,979
Fragility condition			
Not fragile	1		
Pre-fragile/Fragile	1,680	0,692-4,079	0,252
BDLADependence			
No	1		
Yes	0,688	0,082-5,794	0,731
IDLA Dependence			
No	1		
Yes	0,731	0,374-1,431	0,361
Physical Performance			
Moderate/Good	1		
Incapacity/low	1,680	0,710-3,972	0,238

Notes: OR: OddsRatio; CI: Confidence interval; *p≤0,05, 1-Reference category.

Concerning the spatial distribution, regardless of the type of violence, the largest clusters were in the southeast region of the municipality, followed by the northern region (Figure 1). It

should be noted that the concentration of verbal violence was higher (Figure 1). Figure 1 shows the spatial distribution of the elderly participants in the study regarding vulnerability to verbal, physical and verbal and/or physical violence.

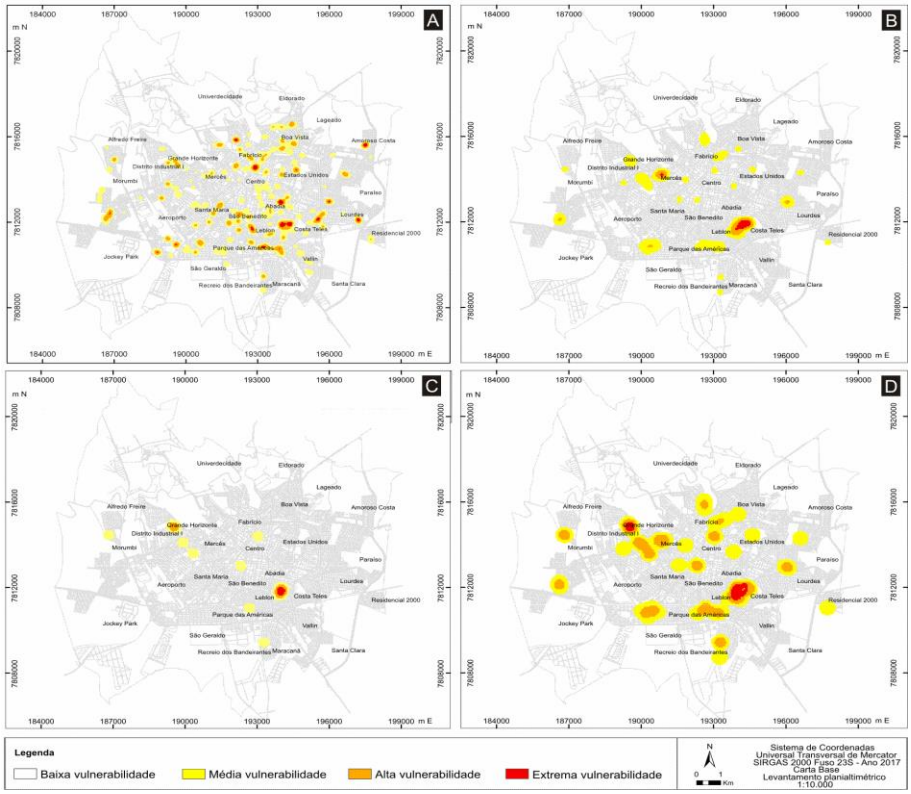

Figure 1. Spatial distribution of the elderly participants of the study: (a) cases of vulnerability; (b) verbal violence; (c) physical and (d) verbal and/or physical in Uberaba, Minas Gerais, 2016.

DISCUSSION

In the present study, the higher prevalence of physical and/or psychological violence, followed by psychological and physical violence, diverges from the analysis of police records against the elderly people in the northwest region of São Paulo, in which psychological violence was the most prevalent, followed by physical violence[14]. However, a lower result was verified in a household survey among elderly residents in the city of Florianópolis (SC)[2]. The different contexts may justify the divergent percentages between investigations.

In the international context, a survey conducted with elderly people from the community of Lithuania, Portugal and Finland[15] obtained higher percentages of psychological violence. And in a study with elderly people in New York and with a modified version of the CTS, the percentage was inferior[1] to that of the present investigation. The higher prevalence of psychological violence can be justified in the presence of family conflicts, since this scenario involves episodes of verbal discussions, threats and financial issues[14,15]. Given this, the elderly people develop a feeling of devaluation and fear, due to the discrimination and disqualification suffered by this type of abuse[14].

Lower percentages for physical violence were verified in Florianópolis (SC)[2] and New York[1]. It should be noted that the prevalence variation related to the types of violence can be justified by socioeconomic differences in each country and between regions of the same nationality; the diversity of definitions identified in the literature regarding types of violence[15]. In addition, there is still a shortage of national surveys with community elders and the issue of violence[2], which makes it difficult to compare the results.

As in the present study, the female gender presented a higher percentage of violence in national[2,14] and international[16] surveys

conducted among the elderly individuals in the community, even with the divergence of instruments to characterize violence. Although they have gained independence, there is still a culture of discrimination against women[17]. A systematic review highlighted the fact that women suffer violence in all age groups, as well as their greater susceptibility, which is aggravated by aging[17].

A similar result for age group was found in a national study through documentary analysis[6], in which the majority of the elderly people who suffered violence were between 60 and 69 years-old. The elderly participants in the younger age group, due to their improved independence and autonomy, are more likely to resort to denunciation services[6,14], as well as to provide greater knowledge about their rights[6]. Thus, greater percentages of violence for the elderly participants in this age group are commonly found in the literature, mainly because most of the studies identified were characterized as documentary analysis surveys[14] or used secondary data on the presence of violence[4,6], making with younger people reporting such percentages in the face of this scenario.

Concerning marital status, the findings of the national literature[2] corroborate the results of this research, in which the highest percentage of elderly victims of violence had no partner. Thus, the absence of a partner is indicated as a factor potentially associated with neglect situations in the elderly people[2]. International study[1] among the elderly people in the community obtained results similar to those who participated of the present study, in which the highest percentages of violence were among those with a monthly income of up to one minimum wage.

It was verified that the majority of the elderly victims of violence had 1 to 4 years of schooling in research conducted among elderly people accompanied in a primary care service in Brasília (DF)[3], which corroborates with the present investigation.

As in the present study, most of the elderly participants who suffered physical and/or psychological and psychological violence lived with their children[2]. In this context, it is highlighted that family disharmony and conflicting relationships can generate risk factors for violence against the elders. It is emphasized that the Family Health Strategies are among the support networks for cases of violence; through health professionals, it is possible that these intra-familial situations are diagnosed and that prevention and integration actions take place, considering the triad: elderly person, family and community[18].

As in the present study, a higher percentage for physical violence among those who live alone was identified in the survey conducted among elderly people in the community of Florianópolis (SC)[2]. It is believed that elderly people with less social support are more likely to be exposed to situations of violence[19]. These situations may be associated with inadequate support services for the elders, lack of capacity to care for and to protect themselves or extrinsic issues, such as poverty or lack of social and family support[19].

The association between physical and/or psychological violence and the younger age corroborates with national surveys[2,6,14]. However, a divergent finding was found in international research, in which 80-year-old or older elderly people presented a higher risk of psychological, physical, financial and negligence violence[19]. A large proportion of older people present greater autonomy, knowledge about their rights and better conditions[5,6,14]. Thus, nurses must be aware of the factors associated with their occurrence, especially among the elderly people in the younger age group, in order to seek help, which makes them more likely to report violence, for prevention strategies to be directed at those who present greater risk and thus, there is possibility of resolution and improvement of the relationships between the elderly people and their aggressor.

The largest clusters of violence in the Southeast region suggest that factors related to space may be interfering with this variable. It should be noted that the highlighted areas concentrate low-income people and a lower percentage of literate people(20). Although violence among the elderly people can occur at different levels of education and income, its effects can be more easily detected among those with low levels of support from partners and family members[18].

Health professionals should be aware of the map of violence against the elderly people in

their coverage areas in order to take preventive action to identify cases of elder abuse and carry out referral according to each situation[18]. Thus, the nurse should understand the relevance in the investigation of the aspects that have favored agglomerations of violence in their areas of coverage; target interventions to the highest risk groups; in addition to implementing protocols/referrals for the elderly people who have suffered some kind of violence in a resolutive manner.

CONCLUSION

The prevalence of psychological violence was greater than physical violence. The characteristics of the elderly participants who suffered physical, psychological and physical and/or psychological violence were similar, with prevalence in women, 60 ├70 years-old, with no partner and individual monthly income up to a minimum wage. Those with 1-5 years of schooling who lived with children had a higher percentage of physical and/or psychological violence; physical violence was higher among those with five or more years of schooling who live alone. The predictor of physical and/or psychological violence was the youngest age. Regarding the place of residence of the victims, the largest clusters were in the southeast region of the municipality, and the highest concentration of violence was characterized as verbal.

The identification of the characteristics related to violence among the elderly people can subsidize the planning of actions directed to the context, in order to guide the professional performance, which makes that the knowledge of the profile and factors associated to its occurrence are relevant. Due to the study design, it was not possible to identify the causal relationship between the variables. It is suggested the need to deepen the issues related to the mapping of this situation in order to identify its relation with the environment and the development of measures directed to the local reality.

FINANCING

Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).

VIOLÊNCIA CONTRA IDOSOS: PREDITORES E DISTRIBUIÇÃO ESPACIAL

RESUMO

Objetivos:verificar a prevalência de violência em idosos nos últimos 12 meses; descrever as características sociodemográficas e econômicas dos idosos segundo o tipo de violência sofrida; verificar os fatores associados à violência e identificar os *clusters* de violência contra idosos no município de Uberaba, Minas Gerais.**Métodos:**Trata-se de um estudo transversal e quantitativo realizado com 581 idosos da comunidade de Uberaba, Minas Gerais.Procederam-se as análises estatísticas:descritiva e regressão logística múltipla ($p \leq 0,05$). **Resultados:**A violência física e/ou psicológica e a psicológica obtiveram maiores percentuais entre aqueles com 1 ├5 anos de estudo e que residiam com filhos. A menor idade associou-se à violência física e/ou psicológica. Os maiores aglomerados foram na região sudeste do município. **Conclusão:** Os idosos mais novos sofrem mais episódios de violência física e/ou psicológica, assim como aqueles com menor escolaridade, que residem com os filhos e na região sudeste do município.

Palavras-chave: Idoso. Maus-tratos ao idoso. Violência. Distribuição espacial da população.

VIOLENCIA CONTRA ANCIANOS: PREDICTORES Y DISTRIBUCIÓN ESPACIAL

RESUMEN

Objetivos: verificar la prevalencia de violencia a ancianos en los últimos 12 meses; describir las características sociodemográficas y económicas de los ancianos según el tipo de violencia sufrida; verificar los factores asociados a la violencia e identificar los clusters de violencia contra ancianos en el municipio de Uberaba, Minas Gerais-Brasil. **Métodos:** Se trata de un estudio transversal y cuantitativo realizado con 581 ancianos de la comunidad de Uberaba, Minas Gerais-Brasil. Procedieron los análisis estadísticos: descriptivo y regresión logística múltiple ($p \leq 0,05$). **Resultados:** La violencia física y/o psicológica y la psicológica obtuvieron mayores porcentuales entre aquellos con 1 ├5 años de estudio y que vivían con los hijos. La menor edad se asoció a la violencia física y/o psicológica. Los mayores índices fueron en la región sudeste del municipio. **Conclusión:** Los ancianos más nuevos sufren más episodios de violencia física y/o psicológica, así como aquellos con menor escolaridad, que viven con los hijos y en la región sudeste del municipio.

Palabras clave: Anciano. Maltrato al anciano. Violencia. Distribución espacial de la población.

REFERENCES

1. Burnes D, Pillemer K, Caccamise PL, Mason A, Henderson CR, Berman J, et al. Prevalence of and Risk Factors for Elder Abuse and Neglect in the Community: A Population-Based Study. J Am Geriatr Soc. 2015 [cited in 2017 Ago]; 63(9):1906–12. doi: https://doi.org/10.1111/jgs.13601.
2. Bolsoni CC, Coelho EBS, Giehl MWC, d´Orsi E. Prevalence of violence against the elderly and associated factors - a population based study in Florianópolis, Santa Catarina. Rev. bras. geriatr. Gerontol [on-line]. 2016 [citado em 2017 Ago]; 19(4):671–669. doi: http://dx.doi.org/10.1590/1809-98232016019.150184.
3. Faustino AM, Gandolfi L, Moura LBA. Functional capability and violence situations against the elderly. Actapaul. Enferm [on-line]. 2014 [cited in 2018 Set]; 27(5):392–8. doi: http://dx.doi.org/10.1590/1982-0194201400066.
4. Miziara CSMG, Braga MV, Carvalho FI, Teixeira TV, Miziara ID, Muñoz DR. Vítima silenciosa: violência doméstica contra o idoso no Brasil. Saúde. Ética & Justiça [on-line]. 2015 [citado em 2018 Set]; 20(1):1–8. doi: http://dx.doi.org/10.11606/issn.2317-2770.v20i1p1-8.
5. Santos AJ, Nicolau R, Fernandes AA, Gil AP. Prevalência da violência contra as pessoas idosas: uma revisão crítica da literatura. Sociologia, Problemas e Práticas[on-line]. 2013 [citado em 2018 Set];(72):53–77. Disponível em: http://journals.openedition.org/spp/1192.
6. Mascarenhas MDM, Andrade SSCA, Neves ACM das, Pedrosa AAG, Silva MMA, Malta DC. Violência contra a pessoa idosa: análise das notificações realizadas no setor saúde - Brasil, 2010. Ciênc. saúde coletiva [on-line]. 2012 [citado em 2017 Ago]; 17(9):2331–41. doi: http://dx.doi.org/10.1590/S1413-81232012000900014.
7. Sudré MRS, Reiners AAO, Azevedo RCS, Floriano LA. Socioeconomic and health conditions of the elderly assisted by Family Health Teams. CiencCuidSaude [on-line]. 2014 [citado em 2019 Jan]; 14(1):933-40. doi: http://dx.doi.org/10.4025/cienccuidsaude.v14i1.19794.
8. Bertolucci PHF, Brucki SMD, Campacci SR, Juliano Y. O Mini-Exame do Estado Mental em uma população geral: impacto da escolaridade. Arq. Neuro-Psiquiatr [on-line]. 1994 [citado em 2017 Jul]; 52(1):01–7. doi: http://dx.doi.org/10.1590/S0004-282X1994000100001.
9. Hasselmann MH, Reichenheim ME. Adaptação transcultural da versão em português da Conflict Tactics Scales Form R (CTS-1), usada para aferir violência no casal: equivalências semântica e de mensuração. Cad. Saúde Pública [on-line]. 2003 [citado em 2017 Set]; 19(4):1083–93. doi: http://dx.doi.org/10.1590/S0102-311X2003000400030.
10. Lino VTS, Pereira SRM, Camacho LAB, Filho R, Telles S, Buksman S. Adaptação transcultural da Escala de Independência em Atividades da Vida Diária (Escala de Katz). Cad. Saúde Pública [on-line]. 2008 [citado em 2017 Jul]; 24(1):103–12. doi: http://dx.doi.org/10.1590/S0102-311X2008000100010.
11. Santos RL, Júnior JSV. Confiabilidade da versão brasileira da escala de atividades instrumentais da vida diária. Rev Bras Promoc Saúde [on-line]. 2012 [citado em 2017 Jul]; 21(4):290–6. Disponível em: file:///C:/Users/pse/Downloads/575-6595-1-PB.pdf.
12. Fried LP, Tangen CM, Walston J, Newman AB, Hirsch C, Gottdiener J, et al. Frailty in older adults: evidence for a phenotype. J Gerontol A Biol Sci Med Sci [on-line]. 2001 [cited in 2017 Jul]; 56(3):M146-156. doi: https://doi.org/10.1093/gerona/56.3.M146.
13. Nakano MM. Versão brasileira da Short Physical Performance Battery SPPB : adaptação cultural e estudo da confiabilidade [dissertação]. Campinas: Faculdade de Educação, Universidade Estadual de Campinas; 2007. [citado em 2016 Out]. Disponível em: http://repositorio.unicamp.br/jspui/handle/REPOSIP/252485.
14. Garbin CAS, Joaquim RC, Rovida TAS, Garbin AJI. Elderly victims of abuse: a five year document analysis. Rev. bras. geriatr. Gerontol [on-line]. 2016 [cited in 2017 Set]; 19(1):87–94. doi: http://dx.doi.org/10.1590/1809-9823.2016.15037.
15. Crome P, Moulias R, Sánchez-Castellano C, Tilvis R, Arora A, Busby F, et al. Elder abuse in Finland, France, Spain and United Kingdom. European Geriatric Medicine [on-line]. 2014 [cited in 2017 Set]; 5(4):277–84. doi: https://doi.org/10.1016/j.eurger.2014.05.008.
16. Miszkurka M, Steensma C, Phillips SP. Correlates of partner and family violence among older Canadians: a life-course approach. Health Promot Chronic Dis Prev Can [on-line]. 2016 [cited in Nov 2016]; 36(3):45–53. doi: https://doi.org/10.24095/hpcdp.36.3.01.
17. Silva ACLG da, Coelho EBS, Moretti-Pires RO. What we know about men who commit violence against their intimate partners: a systematic review. Rev Panam Salud Publica [on-line]. 2014 [cited in Nov 2016]; 35(4):278–83. Available from: https://europepmc.org/abstract/med/24870007.
18. Faustino AM, Moura LBA, Gandolfi L. Relationship between violence and cognitive function in the elderly. Rev enferm UFPE online [on-line]. 2016 [citado em 2017 Ago]; 10(5):1717–23. Available from: https://periodicos.ufpe.br/revistas/revistaenfermagem/article/viewFile/13547/16321.
19. Giraldo-Rodríguez L, Rosas-Carrasco O. Development and psychometric properties of the Geriatric Mistreatment Scale. Geriatr Gerontol Int. 2013 [citado em 2017 Ago]; 13(2):466–74. doi: http://dx.doi.org/10.1111/j.1447-0594.2012.00894.x.
20. Ferreira RV, Bueno ACC. Atlas do município de Uberaba [atlas]. Uberaba; 2014 [citado em 2017 Ago]. Disponível em: http://www.atlasbrasil.org.br/2013/pt/perfil_m/1573.

Corresponding author: Darlene Mara dos Santos Tavares. Avenida Getúlio Guaritá, nº 159, CEP: 38025-440, Uberaba, MG, Brasil. E-mail: darlene.tavares@uftm.edu.br. Telefone: 55 (034) 3700-6154.

Submitted: 22/07/2018
Accepted: 30/01/2019