



## **Analysis of the panorama of mortality by suicide in the elderly population of the Southeast region from 2011 to 2015**

### **Análise do panorama de mortalidade por suicídio na população idosa da região Sudeste no período de 2011 a 2015**

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**Débora Letícia Correia Ishii**

Specialist in clinical medicine, Hospital Regional de Presidente Prudente

**Carolina Bertini Bonini**

Resident in clinical medicine, Hospital de base de São José do Rio preto

**Nicole Yuri Koyama**

Doctor, Presidente Prudente Regional Hospital

#### **ABSTRACT**

The proportion of elderly people has been increasing in recent years and with it, the public health problems related to it. Intentional self-harm is an important public health problem, including in this part of the population. This study aimed to describe the panorama of voluntary self-inflicted injuries in the elderly population of the southeast region in the period from 2011 to 2015. Concluding that self-inflicted injuries in the elderly are in 6th place among the external causes of morbidity and mortality in the period 2011 to 2015 in the southeast region, demonstrating the relevance of the topic in this portion of the population. Suicide among those over 60 occurs more frequently in men. It is necessary to identify these patients and what leads them to idealize the suicidal act so that factors that improve their mental health can be addressed to avoid this event.

**Keywords:** Elderly, Suicide, Mental health.

#### **1 INTRODUCTION**

According to the United Nations Population Fund, in 2012, the number of people aged 60 and over accounted for 11.5% of the global population and this percentage is expected to increase to 22% by 2050<sup>1</sup>. According to the IBGE, the current proportion of elderly people in Brazil is 14.3%, an increase in relation to 2005, when it was 9.8%<sup>2</sup>.

A person aged 60 years or older is considered elderly, according to the Statute of the Elderly<sup>3</sup>. Suicide in this group is a serious problem for societies in many countries<sup>4</sup>. According to a study carried out in 13 European countries by the Multicentre Study of Suicidal Behaviour (WHO/EURO), the average death rate in people over 65 years of age due to self-harm reaches 29.3/100,000<sup>5</sup>.



The elderly population is living longer, but they do not live well and this can be demonstrated by the increased incidence of suicide. This act has some risk factors such as: mood disorder and depression, family problems associated with economic difficulties, alcohol abuse and suicidal ideation as a way to end life<sup>7</sup>.

The increase in the absolute number of elderly people is not accompanied by an improvement in their quality of life, so the risk of events involving voluntary self-harm (suicide) increases. Knowing this mortality panorama can contribute to the development of campaigns that help to make the population aware of this risk and also promote an increase in the life expectancy of the elderly population. It is of great importance for health professionals to know the risk of suicide in the elderly in order to intervene early and thus prevent this event from occurring.

## 2 OBJECTIVE

To describe the panorama of mortality due to voluntary self-harm in the elderly population of the Southeast region from 2011 to 2015.

## 3 METHODOLOGY

The survey of this study was based on data collection on the DATASUS Portal website in HEALTH INFORMATION (TABNET) AND VITAL STATISTICS. Subsequently, the option Mortality – 1996 to 2015 was chosen by the ICD-10. From where data were collected for the southeast region, for the population over 60 years of age, in the period from 2011 to 2015. The causes of external mortality for the study population, the number of annual deaths, and by sex were obtained.

This numerical information provided by the tables was carefully analyzed and, using Microsoft Office Word and Microsoft Office Excel software, tables and graphs were assembled to facilitate the interpretation and presentation of the information evaluated.

## 4 RESULTS

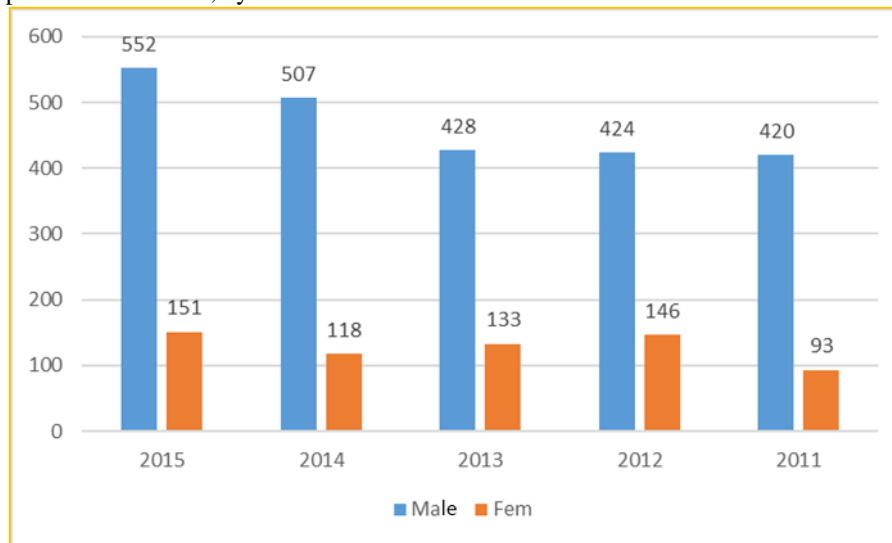
Table 1: Deaths by Household by Cause - ICD-BR-10, External causes of morbidity and mortality, Southeast Region, age group 60 years and over, in the period 2011 – 2015.

<b>EXTERNAL CAUSES OF MORBIDITY AND MORTALITY</b>	<b>64.171</b>
Falls	22.374
Transportation Accidents	12.711
All other external causes	11.247
Events (facts) whose intent is undetermined	9.592
Assaults	3.743
Voluntary self-harm	2.972

Drowning and accidental submersions	735
Exposure to smoke, fire, and flames	609
Poisoned, intoxic by or exposed to nociv subst	175
Legal interventions and war operations	13

It is observed that the main cause of death in the period and in the population evaluated is falls. Self-harmed voluntarily is in the 6th position.

Graph 1: Deaths by Household by Cause - ICD-BR-10, Voluntary self-harm, Southeast Region, age group 60 years and over, in the period 2011 - 2015, by sex8.



A higher number of cases was observed in the male population, and in this group there was an increase in events over the years.

## 5 DISCUSSION

Deaths from falls in the elderly are often associated with other health problems, such as osteoporosis, imbalances, Alzheimer's disease, Parkinson's, among others that tend to increase with population aging.<sup>9</sup>

The high mortality rates due to traffic accidents among the elderly reveal the great risk to which this population is exposed on a daily basis (mainly due to the high vulnerability of elderly pedestrians), often due to physical or mobility problems, requiring special equipment and policies, in addition to specialized care in health services.<sup>9</sup>

In relation to the data contained in Table 1, there are limitations due to inaccuracies in the declaration of the intentionality of the occurrence (homicide/assaults, suicide/voluntary self-harm or accident) that condition the increase in the proportion of external causes of undetermined intent.



This occurs whenever only the nature of the observed lesion is recorded (chapter XIX of the ICD-10 and chapter XVII of the ICD-9), making it difficult to code according to the external cause (chapter XX of the ICD-10 and supplementary classification of external causes of the ICD-9).<sup>8</sup>

Studies by the World Health Organization (WHO, 2001; CHESNAIS, 1981) reveal that the intentions of elderly people to kill themselves are almost always related to feelings of loneliness, social impotence and the high degree of suffering caused by degenerative diseases and depression. Many suicides are associated with abandonment and other forms of violence committed by families or institutions that should provide care to these elderly<sup>10</sup>.

Analyzing the number of suicides from a gender perspective, higher values were found among men than among women. According to WHO data, for every woman who dies in Brazil by suicide, regardless of age, there are between 3 and 4 men dying from this cause. This differentiation of suicide rates between the sexes is based on factors such as: methods of dealing with stress and conflicts, access to alcohol and drugs, viability, and preference for certain means of suicide, and differences in the search for mental health support<sup>11</sup>.

Regarding the means of suicide, more lethal techniques, such as hanging and firearms, predominate among men, while women use less lethal methods, such as drug intoxication<sup>12</sup>. Women have high rates of suicide planning and suicide attempts, while men are the ones who most often reach the final act, because they use more effective instruments. This fact has been called the "suicide paradox"<sup>13,14,15</sup>.

## 6 CONCLUSION

Self-harm in the elderly ranks 6th among the external causes of morbidity and mortality in the period from 2011 to 2015 in the Southeast region, demonstrating the relevance of the theme in this portion of the population. Suicide among those over 60 years of age occurs more frequently in men. It is necessary to identify these patients and what leads them to idealize the suicidal act so that factors that improve their mental health can be addressed, in order to avoid this event.

Further studies are needed to establish the causes that lead this population to suicide. Highlighting that the study has as a weakness the way in which the data is obtained, the fact that the information is impersonal and the underreporting that still occurs in the country.



## REFERENCES

BRASIL. Fundo de População das Nações Unidas. Envelhecimento no Século XXI: Celebração e Desafio. Disponível em: <https://brasil.unfpa.org/pt-br/publications/envelhecimento-no-século-xxi-celebração-e-desafio>. Acesso em: 04 nov. 2023.

BRASIL. Agência de notícia IBGE. Número de idosos cresce 18% em 5 anos e ultrapassa 30 milhões em 2017. Disponível em: <https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/20980-numero-de-idosos-cresce-18-em-5-anos-e-ultrapassa-30-milhoes-em-2017>. Acesso em: 04 nov. 2023.

BRASIL. Lei n.º 10.741, de 1º de outubro de 2003. Dispõe sobre o Estatuto da Pessoa Idosa e dá outras providências. Diário Oficial da União, Brasília, DF, 1º de outubro de 2003. Disponível em: <http://www.unoeste.br/site/biblioteca/documentos/Manual-Normalizacao.pdf?v=2023-2>. Acesso em: 04 nov. 2023.

MINAYO, M. C. S.; CAVALCANTE, F. G. Suicídio entre pessoas idosas: revisão da literatura. Revista de Saúde Pública. v. 44, n. 4, p. 750-757, ago. 2010. Disponível em: <https://www.scielo.br/j/rsp/a/JyrrBDbJs9T7r46pPrTrXcq/>. Acesso em: 04 nov. 2023.

DE LEO, D.; PADOANI, W.; SCOCCO, P.; BILLW-GRAHE, U.; ARCSNMAN, E.; BJERKE, T. et al. Elderly suicidal behaviour: results from WHO/EURO Multicentre Study on Parasuicide. International Journal of Geriatric Psychiatry. v. 16, n. 3, p. 300-310, mar. 2001. Disponível em: <https://onlinelibrary.wiley.com/doi/abs/10.1002/gps.337>. Acesso em: 04 nov. 2023.

DE PAULA, M. F. Os idosos do nosso tempo e a impossibilidade da sabedoria no capitalismo atual. Serviço social e sociedade. v. 126, p.262-280, ago. 2016. Disponível em: <https://onlinelibrary.wiley.com/doi/abs/10.1002/gps.337>. Acesso em: 04 nov. 2023.

SOUSA, G. S.; SILVA, R. M.; FIGUEIREDO, A. E. B.; MINAYO, M. C. S.; VIEIRA, L. J. E. S. Circunstâncias que envolvem o suicídio de pessoas idosas. Interface. v. 18, n. 49, p. 389-402, mar. 2014. Disponível em: <https://www.scielo.br/j/icse/a/gzbVSwRmpY3cF74HJyFwFJK/>. Acesso em: 04 nov. 2023.

BRASIL. Pesquisa de indicadores de mortalidade por causas externas auto provocadas na população acima de 65 anos. DATASUS. Disponível em: [http://datasus.saude.gov.br/index.php?option=com\\_blankcomponent&view=defdefa&Itemid=631](http://datasus.saude.gov.br/index.php?option=com_blankcomponent&view=defdefa&Itemid=631). Acesso em: 04 nov. 2023.

CAMARGO, A. B. M. Idosos e mortalidade: preocupante relação com as causas externas. Análise Seade. v. 1, n. 34, jan. 2016. Disponível em: [http://www.seade.gov.br/wp-content/uploads/2016/03/Primeira\\_Analise\\_35\\_fev16.pdf](http://www.seade.gov.br/wp-content/uploads/2016/03/Primeira_Analise_35_fev16.pdf). Acesso em: 04 nov. 2023.

MINAYO, M. C. S. Seis características das mortes violentas no Brasil. Revista brasileira de estudos de população, v. 26, n. 1, p. 135-140, jan./jun. 2009. Disponível em: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0102-30982009000100010](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-30982009000100010). Acesso em: 04 nov. 2023.



World Health Organization (WHO). Preventing suicide: a global imperative. Geneve, WHO, 2014. Disponível em: <https://www.who.int/publications-detail-redirect/9789241564779>. Acesso em: 04 nov. 2023.

BOTEGA, N. J. Comportamento suicida: epidemiologia. *Psicologia*. v. 25, n. 3, p. 231-236, dez. 2014. Disponível em: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0103-65642014000300231&lng=en&nrm=iso](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-65642014000300231&lng=en&nrm=iso). Acesso em: 04 nov. 2023.

MINAYO, M. C. S.; CAVALCANTE; F. G. Tentativas de suicídio entre pessoas idosas: revisão de literatura. *Ciências saúde coletiva*. v. 20, n. 6, jun. 2015. Disponível em: [http://www.scielo.org/scielo.php?script=sci\\_arttext&pid=S1413-81232015000601751&lng=en](http://www.scielo.org/scielo.php?script=sci_arttext&pid=S1413-81232015000601751&lng=en). Acesso em: 04 nov. 2023.

CALIXTO FILHO, M.; ZERBINI, T. Epidemiologia do suicídio no Brasil entre os anos de 2000 e 2010. *Saúde, Ética & Justiça*. v. 21, n. 2, p. 45-51, dez. 2016. Disponível em: <https://www.revistas.usp.br/sej/article/view/134006>. Acesso em: 04 nov. 2023.

MENEGHEL; S. N.; MOURA, R.; Hesler, L. Z.; MACHADO, D.; GUTIERREZ, D. Tentativa de suicídio em mulheres idosas – uma perspectiva de gênero. *Ciência & Saúde Coletiva*. v. 20, n. 6, p. 1721-1730. Disponível em: <https://www.scielo.br/j/csc/a/jPHCQCWTsFdssdyb8nTLRXh/abstract/?lang=pt>. Acesso em: 04 nov. 2023.