



POPULATION'S KNOWLEDGE ABOUT CEREBROVASCULAR ACCIDENT (STROKE) - PASSERS OF THE SQUARE GIRALDO IN EVORA

CONHECIMENTOS DA POPULAÇÃO SOBRE ACIDENTE VASCULAR CEREBRAL - TRANSEUNTES DA PRAÇA DO GIRALDO EM ÉVORA

CONOCIMIENTOS DE LA POBLACIÓN ACERCA DEL ACCIDENTE CEREBROVASCULAR - TRANSEÚNTES DE LA PLAZA GIRALDO EN ÉVORA

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ABSTRACT

Objective: describing the knowledge of the population about risk factors, signs and symptoms of stroke. **Methodology:** it is a quantitative and cross-sectional study. Convenience sample consisted of 207 passersby aged 16-86 years old (Average=38,85, SD=18,93). **Results:** the pathology is known; the most mentioned information sources are television and friends. The hypercholesterolemia, heart disease and smoking are the listed risk factors. The best-known signs are numbness, weakness in the hemi-body and dysarthria. **Conclusion:** there is the need to strengthen the role of health services in education about stroke. Knowledge shows weaknesses in the valuation of old age and diabetes. Significant is the recognition of the risk associated with tobacco and persistence in consumption. **Descriptors:** Knowledge; Stroke; People; Information.

RESUMO

Objetivo: descrever o conhecimento da população sobre fatores de risco, sinais e sintomas de AVC. **Metodologia:** estudo quantitativo e transversal. Amostra de conveniência com 207 transeuntes com idades entre 16-86 anos (M=38,85; DP=18,93). **Resultados:** a patologia é conhecida, as fontes de informação mais referidas são a televisão e amigos. A hipercolesterolemia, doença cardíaca e tabagismo são os fatores de risco mais enunciadas. Os sinais mais conhecidos são a dormência, a fraqueza no hemicorpo e a disartria. **Conclusão:** há necessidade de reforçar o papel dos serviços de saúde na educação sobre o AVC. O conhecimento exibe fragilidades na valorização da idade avançada e diabetes. Destaca-se o reconhecimento do risco associado ao tabaco e a persistência no consumo. **Descritores:** Conhecimento; Acidente Vascular Cerebral; Pessoas; Informação.

RESUMEN

Objetivo: describir el conocimiento de la población acerca de los factores de riesgo, signos y síntomas de un derrame cerebral. **Metodología:** un estudio cuantitativo y transversal. Muestra de conveniencia con 207 transeúntes con edad 16-86 años (M=38,85, SD=18,93). **Resultados:** se conoce la patología; las fuentes de información más mencionadas son la televisión y los amigos. La hipercolesterolemia, enfermedad del corazón y el tabaquismo son los factores de riesgo más listados. Los signos más conocidos son entumecimiento, debilidad en el hemi-cuerpo y disartria. **Conclusión:** hay necesidad de fortalecer el papel de los servicios de salud en la educación acerca del accidente cerebrovascular. Su conocimiento muestra debilidades en la valoración de la vejez y el diabetes. Es de destacar el reconocimiento de los riesgos asociados con el tabaco y la persistencia en el consumo. **Descriptores:** Conocimiento; Accidente Vascular Cerebral; Personas; Información.

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INTRODUCTION

The Cerebrovascular Accident (stroke) is defined as a sudden neurological deficit, caused by ischemia or bleeding in the central nervous system.¹ The ischemic stroke is the most common, caused by a vascular occlusion located. The hemorrhagic stroke, due to arterial rupture, with interruption of supply of oxygen and glucose to brain tissue, impairment and metabolic processes of the territory involved.² Hemorrhagic stroke was the most lethal in 2010 and accounted for most of the mortality of both events.³

Risk factors for stroke can be classified as 1) non-modifiable risk factors, 2) modifiable risk factors related to lifestyle and 3) factors related to heart disease, metabolic and some biomarkers (4). The World Health Organization (WHO) stresses hypertension as a modifiable factor underlining that would save four lives in ten, if the blood pressure was regularized. Referred to smoking, inadequate diet, excessive salt intake, physical inactivity, diabetes and dyslipidemia as associated with lifestyle and so changeable, emphasizing the importance of prevention (5). The stroke clinical manifestation arises depending on the brain area involved and the most common signs and symptoms include decreased strength and/or side against sensitivity, aphasia, apraxia, dysarthria, partial or complete hemianopia, altered state of consciousness and confusion, diplopia, dizziness, ataxia, and nystagmus.⁶

In the Portuguese population, stroke is the leading cause of death, with significant place in years of life lost rate.^{7,8} How to cause sensitive to primary prevention and health care, years of potential life lost rate [AVPP] per 1000 population in our country is superior to the best European average (i.e. 127 *versus* 69).⁹

Studies in several locations describe the knowledge that the population has about stroke (10-14), but in our region, with the highest mortality rate in 2012 compared to the national average (169.1/100.000 inhabitants *versus* 128.8/100.000 inhabitants) (15) the theme is not explored from the perspective of lay knowledge.

The occurrence of stroke, speed identification of the critical situation and the arrival to health services is critical. It is therefore important to recognize the knowledge of the population since to recognizing the picture, perhaps act more quickly in finding resources. So it is objective of this study describing the knowledge that

passers circumstances the main square of the city of Évora have about stroke.

OBJECTIVES

- Describing the knowledge of the population about risk factors for stroke.
- Characterizing the population's knowledge about the signs and symptoms of stroke.

METHODOLOGY

This is a descriptive transversal study of a quantitative character. Subject to the approval of the **Ethics Committee for Research in Human Health and Wellness Areas (CEIASHE)**, it had positive opinion respecting the ethical aspects of data research with human beings (16).

The form was applied in the approach to passersby in the main square of Évora. It was within the Stroke Week celebration. Ensured the voluntary nature of participation, of the 207, 233 approached agreed to participate. The data collection instrument modeled after an earlier study with permission of the authors.¹³ The form, in addition to demographic data, was organized into four sections. At first, they were questioned about current subjects and smoking pathology. The second, in dichotomous questions, they were inquired about the sources of information about stroke. In the third, a checklist presented itself of 14 possibilities, requesting the recognition of risk factors for stroke. On Wednesday, before a list of 12 symptoms, they asked themselves about the characteristics of emerging episode of this disease. It ended up with the opinion of the subjects on the information that health services offer.

RESULTS

The 207 passers-by, of which 86 (40.38%) were men and 121 (59.62%) women, aged between 16 and 86 years old (Average = 38.85, SD = 18.93) with mode of 20 years. The average age of the men was of 40.38 years old (SD = 19.78), and of the women was of 37.77 years old (SD = 18.30), without significant differences according to gender ($t_{(205)} = .976$; $P = .330$).

The majority of subjects does not suffer from chronic diseases such as Diabetes, Obesity and Heart Disease. In self-reported 37 (18%) of respondents reported hypertension and hypercholesterolemia. About 33% (N = 69) have smoking habits, with an average consumption of 11 cigarettes daily, ranging between 1 and 40 cigarettes.

Except one, all participants have heard about stroke as a pathological thing, especially television as a source of information (N = 191; 92.7%), followed by conversation with friends (N = 161; 78.2) and Health Services (n = 135; 65.5%). The information that health services offer to the public about stroke is enough in the opinion of eighty subjects (38.6%), compared to about half that qualifies as low (N = 104; 50.2%) or not (N = 23; 11.1%). For the majority of these subjects the prevention of stroke is possible (N = 194; 94.2%), but does not cure (n = 138; 67.6%).

The results of the list items¹⁴, a number of diseases, habits or behaviors were obtained from 207 subjects giving 1225 answers. In analysis of multiple responses hypercholesterolemia, heart diseases and smoking feature prominently entries greater than 80%. Following the alcohol, advanced age and diabetes, the latter referred to by 118 subjects. It was incorrectly cited as 232 answers stroke risk factors. Table 1 shows the overall results.

By testing χ^2 it was observed that the correct indication of stroke risk factors is not associated with gender ($p > .05$). For three age groups considered (ie 16-30 years old, 31-54 and 55-86) there was found in successive χ^2 tests that age over 55 years old was statistically associated with the correct omission of AIDS as a factor in risk for stroke ($\chi^2_{(2,N=207)}=6.335$; $p=0.042$), and hepatitis ($\chi^2_{(2,N=207)}=18.2260$; $p=0.000$), varices ($\chi^2_{(2,N=207)}=6.445$; $p=0.040$) and asthma ($\chi^2_{(2,N=207)}=8.538$; $p=0.014$). These age groups statistically mean no relation to the correct/incorrect indication of cancer, gastritis, or thyroid disease ($p > .05$).

Following analysis of multiple responses, considering only the correct risk factors, the highest value for men, a difference more than 5% is located in alcohol (71.8% in men versus 65.3% in women), while the factor pill is more valued by women (23.5% versus 32.2%) as in figure 1.

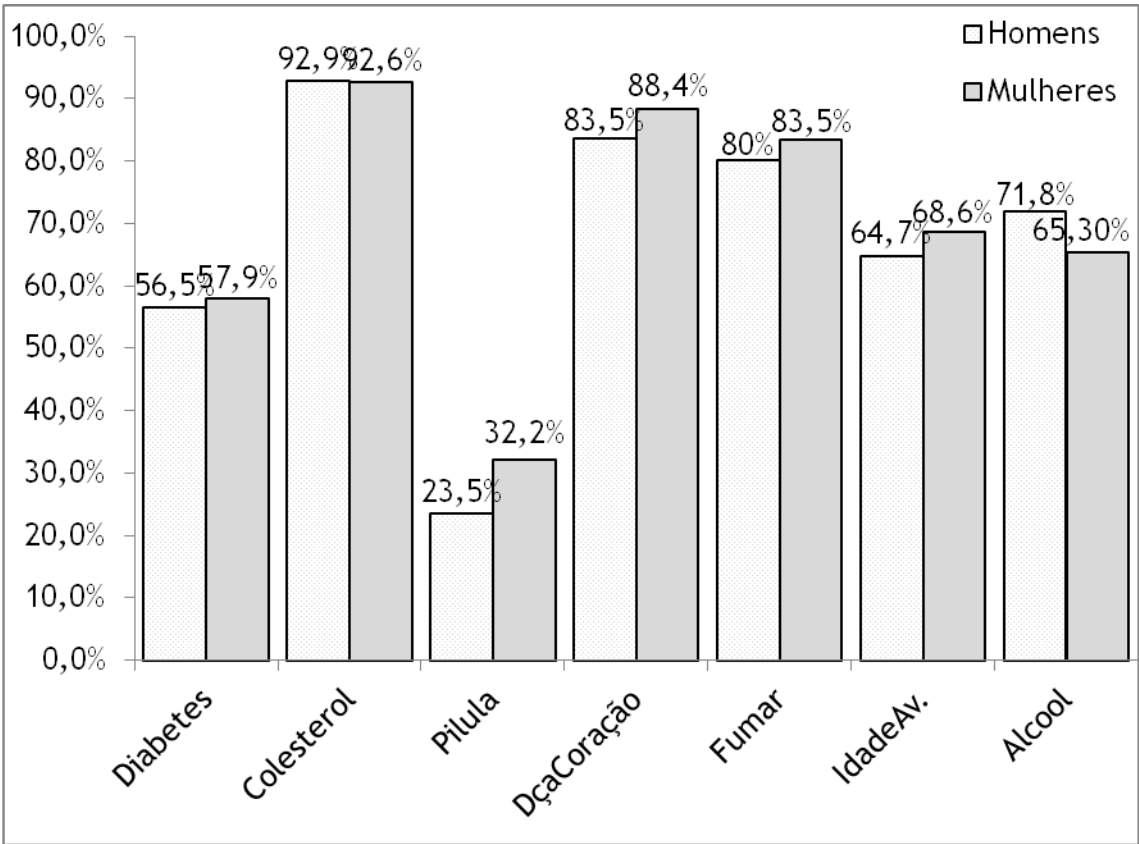


Figure 1. Representation of correctly identified risk factors for men and women.

Taking the subjects which identify the risk factors such as smoking, heart disease, high cholesterol levels and diabetes, it was found that the percentage representations are

higher in those who live with such pathology or behavior. However in subjects who recognize age as a risk factor, it is the elderly (i.e. 65 or more) less the value (Figure 2).

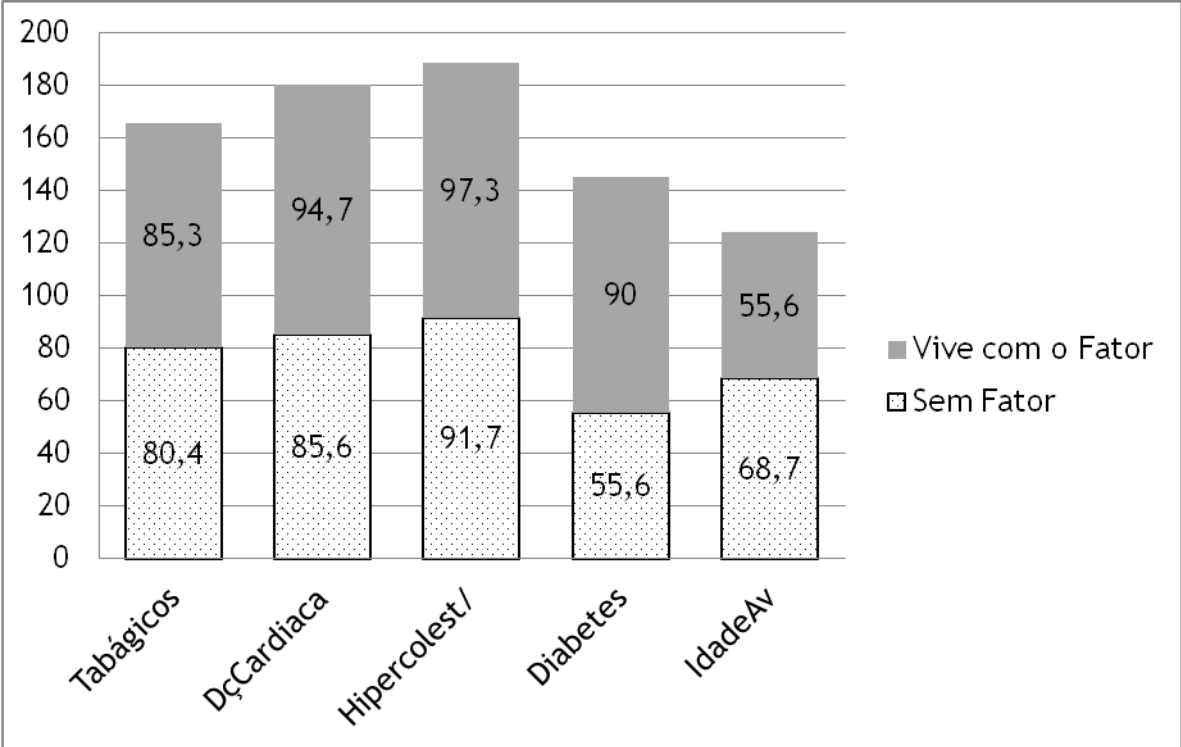


Figure 2. Recognition of risk factors according to the experience of the absence or presence of these factors in your health.

Through further analysis of multiple answers, there was recognition of subjects by stroke symptoms frame. The 204 participants to introduce themselves to checklist with 12

items, there was obtained a total of 1326 entries. The most recognized symptom is numbness of one side of the body with 185 mentions (90.7%) as shown in Figure 3.

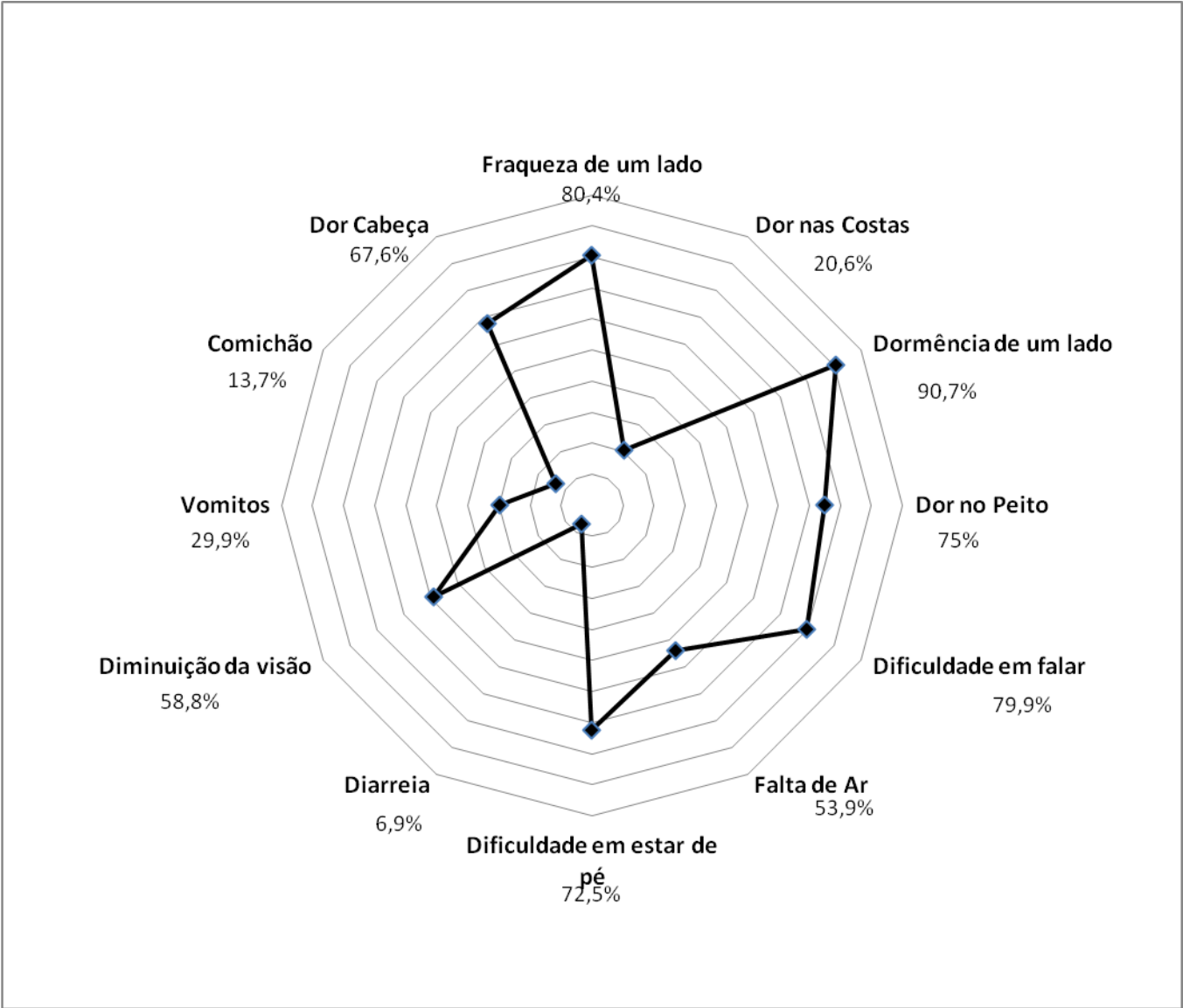


Figure 3. Recognition of the symptoms of stroke by subjects.

Considering the opinion of the subjects in the level of information of health services in two categories (ie inform very little and tell /

do not tell), through successive Fisher exact tests it was found that was independent of crippled from diabetes ($\chi^2_{(2,N=207)}=2.020$;

$p=0.190$), to be obese ($\chi^2_{(2,N=207)}=1.997$; $p=0.265$) or heart ($\chi^2_{(2,N=207)}=1.342$; $p=0.325$). In successive tests χ^2 also observed that there was independent of their perception on the supply of information of health services, that they have hypertension ($\chi^2_{(2,N=207)}=.734$; $p=0.392$), hypercholesterolemia ($\chi^2_{(2,N=207)}=.234$; $p=0.628$), and smoking status ($\chi^2_{(2,N=207)}=1.019$; $p=0.313$).

DISCUSSION

The surveyed sample of subjects refers to common citizens and thus be credible, that most do not mention chronic diseases, a fact that any clinical sample might reveal. Yet the self-recognition of hypertension and hypercholesterolemia in 18% of subjects contributes to the regional representation, which records on the mainland in 2012, the highest death rate from stroke.¹⁵

The knowledge of the subjects about the existence of stroke as pathological thing is significant and coincides with other studies.¹³ The ordination of information sources in the current sample contrasts; however with study in the city of Bragança, where priority is given to health professionals¹¹, which seems to express poor visibility of local professionals on the action expected by the population. In fact the health resources are reduced in effective professional (i.e. 2.1 doctors and 5.0 nurses per 1.000 inhabitants)¹⁷, converging to less exposure of the population to health education. Television as information agent is relevant to the current subject and confirms its effectiveness compared with campaigns of health services.¹⁸

The fact that most subjects admit that prevention of stroke is possible, it indicates the need to improve the role of health services in education about stroke. The European Stroke Organization (19) recommends the involvement of health services, schools and social organizations in the prevention of stroke including the training of citizens for signs and symptoms of stroke, healthy lifestyles, weight management, salt intake, control of blood pressure and smoking cessation.

The most mention of the subject as high cholesterol, heart disease and smoking as risk factors, demonstrates knowledge. However, shows weaknesses as the appreciation of old age and diabetes, which corroborates other studies that identify gaps in public knowledge.¹⁸

The association between hypercholesterolemia and the risk of stroke is this aspect in epidemiological studies (20).

Relating personal coexistence of some subjects with hypercholesterolemia and that this factor be as above, suggests sensitivity of the population. In fact, the prevalence of hypercholesterolemia in Portugal is around 56% in adults (ie 18-75 years old), rising the percentage representation in the group with 50 years old and over (21). It should be added that hypercholesterolemia is mostly associated with other factors such as high body mass index (BMI) and hypertension. The recognition of the subjects regarding heart disease and secondly about competing for the ordination of risk factors referred to by the authors.⁴

Heart disease, recognized secondly as a risk factor in the subjects of this study contributes to the highlight of the authors regarding atrial fibrillation, responsible for about 20% of all strokes.⁴

Concerning smoking, at the same time, it is identified as a risk factor practiced by about 1/3 of the subjects exhibiting a higher addition to the documented in 2012 (ie 33% versus 23%) (22). Smoking is a problem in Alentejo, with the highest incidence in the country at an early age, compounded by the fact that several commercial establishments ignore the law on sales to minors.⁸ It emphasizes perhaps this conflict recognition-consent, the reduced search of users, and poor accessibility smoking cessation consultation, as this feature has decreased since 2007.⁸ Compete for the recommendation presented by the European Stroke Initiative (19) as the largest investment in educational programs to raise awareness of the population (Class II, Level B).

The relative position of the recognition of alcohol as a risk factor, suggests some decoupling of the subjects about this factor. It converges to a certain tolerance of local generation and confirms retrospective, a review of the National Health Survey 1987-1999, which highlights the most marked alcohol consumption in the southern region.³ These behaviors rooted up initiation and perpetuated this risk modifiable in the local inhabitants, ie a certain regionalization of pathological thing.

Enunciated in just over half of the indications of risk factors, it is less representative diabetes in people without this disease. This result requires research, as it may reveal a lack of information about the stroke risk. Indeed in Portugal there has been a 1% increase in the prevalence of diabetes in 2011 (12.7%) resulting in increased risk for stroke.²³

Minority recognized as a risk factor is the pill, appearing more in women. Thus the results contribute to a gender valuation, since the male subsample reveals alienation, perhaps by not lasting exposure method. Some studies show that women who use oral contraception with 30-40µg ethinyl estradiol dosage have a higher incidence of ischemic stroke.²⁴⁻⁵ The contraception is a benefit for the couple, but rarely is a responsibility assumed by women.

The studies show that men usually predominantly recognize the value and behavioral factors such as alcohol^{18,26}, which confirms the results. Have the socializing habits abroad, more frequent in males, contributed to such an extent in the information.

The remaining results are not observed percentage marked differences between men and women with regard to risk factors, countering gender asymmetries observed in other studies in which women stand out with more knowledge about stroke.¹⁸

The subjects suffering from heart disease, diabetes or hypercholesterolemia invoke these conditions as risk factors. Such pathologies, including diabetes, is a potent cardiovascular risk factor, doubled the probability of stroke coexist.²⁶⁻⁷

Being patent the undervaluation of age, precisely the elderly, intuition is the ignorance of the subject as the organic weaknesses of an aging or perhaps the difficulty in recognizing an irreversible condition of life. The risk of stroke doubles from the age of 55, with each decade of a person's life.⁴ On the other hand, the loss of function is a painful facet in aging and it is natural that in defense mechanism, the older deny limitations senescence.

The participants are mainly informed about the indicative signs of stroke, because the sensory and motor abnormalities of a hemi-body and changes in oral communication are the most recognized. The results are consistent with studies in the population.²⁸ In a similar study conducted in Tras-os-Montes, the recognition of the signs and symptoms of stroke is lower in percentage terms than in the current study.¹¹ Interregional variability may be due to factors relating to the public information campaigns about the sensitivity of health workers face to local incidence, or sensitivity of residents in living with the condition in significant figures or for methodological reasons the data collection instruments. Should then beware if the inference of the results. Despite these considerations highlights the fact that they

are the sensory-motor manifestations of which appear to be more widespread knowledge of the population.

The recognition of the signs and symptoms of stroke indicators is important for signaling and early therapeutic intervention. The recommendations for the treatment of ischemic stroke indicates the need to study the knowledge acquired by the population but also the capacity to carry out effective actions, leading to early treatment.¹⁹ In addition to the discussion of this result the statistics released by the DGS in 2013, which reveals a decrease in the potential loss of years of life for stroke since 2006, concurrently with an increase of admitted victims in specialized units through the via Verde stroke, implemented in Portugal since 2005.²⁹

CONCLUSION

The current study contributes to map the knowledge of the population about risk factors, signs and symptoms of stroke. It includes the results of some participants the conflict between the recognition of tobacco as a risk factor and the addition to this consumption. It will consider the likely improvement of health indicators for stroke by local services, considering greater investment in public education; it being understood here in a broad sense to the various ages and literacy. The results indicate the need to strengthen the role of health services in education about stroke. Such evidence must be considered also in the sense of health professionals undertake strategies that involve the community (30). The involvement of schools, public institutions and social organizations in the training of citizens, promotion of healthy lifestyles, proper diet, exercise, weight management, salt intake, blood pressure control and smoking cessation could perhaps improve the health status of citizens, alert to risk factors and inform for fast relief due to the stroke context of the installation.

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Submission: 2015/03/10

Accepted: 2015/10/25

Publishing: 2016/01/01

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