# RESEARCH

# PREVALENCE OF DEPRESSION SYMPTOMS IN ELDERLY PEOPLE ASSISTED BY THE FAMILY **HEALTH STRATEGY**

PREVALÊNCIA DE SINTOMAS DE DEPRESSÃO EM IDOSOS ASSISTIDOS PELA ESTRATÉGIA DE SAÚDE DA FAMÍLIA

PREVALENCIA DE SÍNTOMAS DE DEPRESIÓN EN ADULTOS MAYORES ATENDIDOS POR EL PROGRAMA ESTRATEGIA DE SALUD DE LA FAMILIA

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## **ABSTRACT**

**RESUMO** 

Objective: To determine the prevalence of symptoms of depression and to verify association with sociodemographic factors in elderly enrolled in a Family Health Strategy in the municipality of Cajazeiras, PB. Methods: Descriptive field research with a quantitative approach in a sample of 153 elderly. Data were collected through home interviews using a sociodemographic questionnaire and the 15-item Yesavage Geriatric Depression Scale (EDG-15). To evaluate the associations between symptoms of depression and sociodemographic variables, the statistical model Poisson Regression was used, where crude and adjusted prevalence ratios were calculated with a 95% confidence interval. Results: A prevalence of symptoms of depression was identified in 28.1% of the elderly. When multivariate regression analysis was performed, the significant variables for a higher prevalence of symptoms of depression were female, divorced, non-religious and with chronic disease. Conclusion: Strategies aimed at identifying symptoms of depression and associated factors are necessary for elderly health care and can help health professionals, especially at the primary care level, understand the reality of these individuals, diagnose early and intervene adequately In the prevention or treatment of the depression.

# Keywords: Aged; Prevalence; Depression; Family Health Strategy.

Objetivo: determinar a prevalência de sintomas de depressão e verificar associação com fatores sociodemográficos em idosos cadastrados em uma Estratégia de Saúde da Família do município de Cajazeiras, PB. Métodos: pesquisa de campo do tipo descritiva com abordagem quantitativa em amostra de 153 idosos. A coleta de dados deu-se a partir de entrevistas domiciliares utilizando questionário sociodemográfico e aplicação da Escala de Depressão Geriátrica de Yesavage com 15 itens (EDG-15). Para avaliar as associações entre sintomas de depressão e as variáveis sociodemográficas utilizou-se o modelo estatístico Regressão de Poisson, em que foram calculadas razões de prevalências brutas e ajustadas com intervalo de confiança de 95%. Resultados: identificou-se prevalência de depressão em 28,1% dos idosos. Quando feita análise multivariada de regressão, as variáveis significativas para maior prevalência de sintomas de depressão foram pessoas do sexo feminino, divorciadas, sem religião e com doença crônica. Conclusão: estratégias voltadas para a identificação de sintomas de depressão e dos fatores associados são necessárias na atenção à saúde do idoso e podem ajudar os profissionais de saúde, principalmente em nível de atenção primária, a compreenderem a realidade desses indivíduos, diagnosticar precocemente e intervir de forma adequada na prevenção ou tratamento da depressão.

Palavras-chave: Idoso; Prevalência; Depressão; Estratégia Saúde da Família.

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#### RESUMEN

Objetivo: determinar la prevalencia de síntomas de depresión y verificar su asociación con factores sociodemográficos en adultos mayores inscritos en el programa Estrategia de Salud de la Familia del municipio de Cajazeiras, PB. Métodos: Investigación de campo tipo descriptiva con enfoque cuantitativo en una muestra de 153 adultos mayores. La recogida de datos se realizó a través de entrevistas domiciliarias con una encuesta sociodemográfica y la aplicación de la Escala de Depresión Geriátrica de Yesavage con 15 ítems (EDG-15). Para evaluar las asociaciones entre los síntomas de depresión y las variables sociodemográficas se utilizó el modelo estadístico Regresión de Poisson donde se calcularon las razones de prevalencia bruta y ajustada con intervalo de confianza del 95%. Resultados: Se identificó la prevalencia de síntomas de depresión en el 28,1% de los adultos mayores. Cuando se realizó un análisis multivariado de regresión, las variables significativas para mayor prevalencia de síntomas de depresión fueron personas del sexo femenino, divorciadas, sin religión y con enfermedad crónica. Conclusiones: para la atención de la salud de los adultos mayores se necesitan estrategias dirigidas a la identificación de los síntomas de depresión y de los factores asociados. Dichas estrategias también pueden ayudar a los profesionales de la salud, principalmente a nivel de la atención primaria, a comprender la realidad de estos individuos, a efectuar el diagnóstico temprano y a intervenir adecuadamente en la prevención o tratamiento de la depresión.

Palabras clave: Anciano; Prevalencia; Depresión; Estrategia de Salud Familiar.

## INTRODUCTION

The increase in life expectancy in the last decades has generated a remarkable change in the global age profile. The proportion of 60-year-old people or older is growing rapidly than any other age group around the world. In Brazil, for example, there are approximately 20 million people aged 60 or over, representing about 10% of the total population and an estimate of 32 million in 2025.<sup>1</sup>

In this perspective, it is important to note that, as the elderly population increases, the cases of illnesses prevalent in old age, especially neurological-degenerative diseases and depression – a psychiatric condition related to mood relegation – that has its etiology linked in the old age, besides the physiological changes, mainly to the modifications of the social role and the situation of loss.<sup>2,3</sup>

Depression is one of the most serious injuries of old age since it is estimated that 48.9% of the elderly population in Brazil suffer from more than one chronic illness and depression reaches 9.2% of the total. This is a reality aggravated by the multiplicity of manifestations, conceptualization and difficult diagnosis, emerging the need for a more critical and reflective view on the theme.<sup>2</sup>

Symptoms of depression are often present in the elderly, ranging from 8 to 16% and they are often neglected and seen as a natural consequence of aging. The disease is among the three main causes of disability in the modern world, whose importance in general morbidity and mortality is close to the chronic-degenerative diseases. It is estimated that by 2030 the depressive disorder will assume the second position as the cause of disability worldwide and the first cause in the nations of high per capita income. It is one of the most common and important psychiatric problems in the elderly, reaching at least one in six elderly people assisted in basic care.<sup>4,5</sup>

Despite its significant importance, the diagnosis of depression in the elderly is greatly reduced. It is estimated that 50% of depressed elderly people are not diagnosed by health professionals who work in primary care. Issues that may interfere with their identification are the insidious onset of symptoms,

with the tendency of patients to express them in the form of physical complaints such as fatigue, sleepiness, lack of appetite, leading general doctors to culturally and erroneously define depressive symptoms as being normal characteristics of aging or secondary to some other clinical disease.<sup>6,7</sup>

Female gender, age group, marital status, socioeconomic restrictions, low education level, personality attributions, sleep disturbances, housing inadequacies, social support deficit, life stressors, previous psychiatric picture, cognitive decline, functional restrictions and comorbidities, whether chronic or acute are among the main risk factors involved in this disease process.<sup>8</sup>

Considering that health care encompasses not only the biological aspects of the individual, but its biopsychosocial complexity, the Family Health Strategy (ESF), and other health services, has a privileged position in the care of the elderly because of the functioning as a gateway to health services and direct action with the community.<sup>9</sup>

It is a challenge for health, as a consequence of population aging, prevention, and retardation of diseases and disabilities, maintenance of health, independence and mobility of the elderly, directly interfering in the quality of life of these individuals in both physical and mental area. Therefore, the search for strengthening, extension, and improvement of the Family Health Program and qualification of its professionals is considered an important strategy of care for these elderly people with a focus and efforts to do so.<sup>10</sup>

The objective of this study was to determine the prevalence of symptoms of depression and to verify association with sociodemographic factors in elderly enrolled in a Family Health Strategy in the municipality of Cajazeiras, PB.

# **METHODS**

This is a descriptive field research with a quantitative approach. The research was carried out in the municipality of Cajazeiras, state of Paraíba, located 468 km far from the state capital, with a territorial area of 565,899 km² and an estimated

population of 61,816 inhabitants. It is the headquarters of the 9<sup>th</sup> Regional Health Management of Paraíba, with Cajazeiras and 14 other municipalities. It has an estimated elderly population of 7,628 people and 16 Family Health Units.<sup>11</sup>

Among the 16 Family Health Units in operation, Bela Vista Basic Health Unit with a population of 2,788 people, is chosen as the research site and it is divided into five micro areas.

The population of this research was composed of all individuals with 60 years old or older living in the Unit's assigned area, totaling 252 elderly. A sample calculation with a confidence level of 95% and an acceptable margin of error of 5% was used to select a proportional and representative sample in the universe studied, totalizing a sample of 153 elderly people. The following inclusion criteria were adopted: being 60 years old or older; being enrolled in the Basic Health Unit selected for at least six months and having physical and mental state capable of responding to the questionnaire, being aware and oriented in time and space. The exclusion criteria were the elderly not found in their residence after three attempts at visiting at different times, hospitalized elderly and those who refused to sign the Informed Consent Term (TCLE).

The research was carried out after approval by the Research Ethics Committee of the Federal University of Campina Grande (CAAE n° 44862115.3.0000.5575), in August 2015, in compliance with all norms of research ethics involving human beings.

Data were collected through individual interviews conducted by one of the researchers in the elderly's home, in the morning or afternoon shifts. The visits were guided by the community health agents who took the researcher to the residences corresponding to their respective micro-area. There was no sample loss, and the 153 randomly selected elderly individuals, by full name, were eligible for the inclusion criteria and accepted to participate after signing the Free and Informed Consent Term (TCLE), being interviewed by the researcher from the sociodemographic questionnaire and application of the Geriatric Depression Scale (EDG).

The variables used in the sociodemographic questionnaire were: gender, race, age, marital status, religion, education level, family arrangement, monthly individual income, social security situation, recent mourning, participation in cohabitation groups and chronic illness.

The EDG with 15 items (EDG-15) used in this study is a short version of the original scale elaborated by Sheikh and Yesavage, from the items that most strongly correlated with the diagnosis of depression. It is one of the instruments most used for the screening of symptoms of depression in the elderly, offering valid and reliable measures. The EDG contains questions with dichotomous answers (yes/no). the appropriate (nondepressed) responses to questions 1, 5, 7, 11, 12, 13, 14 used "yes" and all others to "no" to identify as a suspect of depression. Each inadequate response is one point and each adequate response is zero point. After the sum of the responses, the suggestive score of depression from six points is considered.<sup>12</sup>

The data collected were analyzed in the Statistical Package for Social Sciences (SPSS) version 20. Poisson regression was used to evaluate the associations between depressive symptoms and independent variables. Initially, bivariate Poisson regressions were performed, with sociodemographic variables as the dependent variable, and independent variables. Those variables that showed a probability less or equal to 20% (p  $\leq$  0.2) of not excluding the null hypothesis were evaluated in a multivariate Poisson model. The robust estimator was used in the covariance matrix to obtain more robust standard errors. The magnitude of the effects of the tests was interpreted as prevalence ratios (PR), with 95% confidence intervals.

# **RESULTS**

Of the 153 elderly people interviewed, 28.1% showed symptoms of depression, 70.6% did not experience recent mourning, 62.1% had one or more chronic diseases, 66.7% were women, 46.4% were white, 60.8% belonged to the 60-69 age group, 49.7% were married, 86.3% were Catholic, 56.3% had a primary level study, 42.5% lived with relatives without their partner, 90.8% did not participate in social groups and 86.9% had individual monthly income between one and two minimum wages and 63.4% retirees.

From the bivariate (Table 1) and multivariate regression analyses (Table 2), associations of depressive symptomatology with sociodemographic variables were observed. The discussion in Table 1 shows bivariate results, showing that female, widowed, divorced, and non-religious elderly have a higher prevalence of symptoms of depression, while those living with a partner and family members are less prevalent when compared to those who live alone. It was also found that retirees and pensioners and elderly people with chronic diseases have a higher prevalence of symptoms of depression.

Table 2 shows the variables that presented statistical significance less or equal to 0.2 and inserted in a multivariate regression model. In this model, the association between depression symptoms and female gender, divorced status, elderly without religion and chronic disease, both with a higher prevalence of depression symptoms remained statistically significant.

# **DISCUSSION**

The prevalence of depressive symptoms found in this study is comparable to those conducted with primary care samples. National cross-sectional studies conducted with the elderly population show that the prevalence of depression is between 5 and 52% when considering the different forms and severity and varying according to the instrument used and the place where the population is inserted.<sup>13-21</sup>

Table 1 - Bivariate model of depression and sociodemographic data

		Without symptoms of depression		With symptoms of depression		р	Gross RP	CI 95%	
									Superior
Gender	Male <sub>ref.</sub>	42	82.4%	9	17.6%	_	_	-	-
	Female	68	66.7%	34	33.3%	0.05	1.88	0.48	3.63
Race	White <sub>ref.</sub>	49	69%	22	31%	-	-	-	-
	Brown	36	70.6%	15	29.4%	0.85	0.94	0.54	1.64
	Black	25	80.6%	6	19.4%	0.24	0.62	0.28	1.38
Age	60 to 69 years old <sub>ref.</sub>	69	74.2%	24	25.8%	-	-	-	-
	70 to 79 years old	25	73.5%	9	26.5%	0.94	1.02	0.53	1.98
	More than 80 years old	16	61.5%	10	38.5%	0.21	1.49	0.82	2.70
	Married <sub>ref.</sub>	63	82.9%	13	17.1%	-	-	-	-
A A seine Lenenus	Widowed	33	63.5%	19	36.5%	0.01	2.13	1.16	3.93
Marital status	Divorced	8	59%	8	50%	<0.01	2.92	1.45	5.86
	Single	6	66.7%	3	33.3%	0.21	1.94	0.68	5.55
	Catholic <sub>ref.</sub>	96	72.7%	36	27.3%	-	-	-	-
	Evangelic	11	78.6%	3	21.4%	0.65	0.78	0.27	2.22
Religion	No religion	2	33.3%	4	66.7%	<0.01	2.44	1.30	4.59
	Spitist	1	100%	0	0.0%	-	-	-	-
	Without <sub>ref.</sub>	41	68.3%	19	31.7%	-	-	-	-
	Incomplete Elementary School	52	72.2%	20	27.8%	0.62	0.87	0.51	1.48
	Compl. Elem. School	10	71.4%	4	28.6%	0.82	0.90	0.36	2.23
Education level	Incompl. High School	0	0.0%	0	0.0%	*	-	-	-
	Compl. High School	5	100%	0	0.0%	*	-	-	-
	Incompl. Higher Education	0	0.0%	0	0.0%	*	-	-	-
	Compl. Higher Education	2	100%	0	0.0%	*	-	-	-
	Alone <sub>ref.</sub>	6	50%	6	50%	-	-	-	-
Family arrangement	With a partner(a)	14	82.4%	3	17.6%	0.08	0.35	0.10	1.14
	With a partner and Family members	49	83.1%	10	16.9%	<0.01	0.33	0.15	0.75
	With Family members (without a partner)	41	63.1%	24	36.9%	0.36	0.73	0.38	1.41
Individual income	< 1 minimum wage <sub>ref.</sub>	10	76.9%	3	23.1%	-	-	-	-
	1 to 2 minimum wages	5	83.3%	1	16.7%	0.75	0.72	0.09	5.58
	2 to 4 minimum wages	93	70.5%	39	29.5%	0.63	1.28	0.45	3.57
	> 4 minimum wages	1	100%	0	0.0%	*	-	-	-
Social security situation	Retired <sub>ref.</sub>	74	76.3%	23	23.7%	-	-	-	-
	Pensioner	6	75%	2	25%	0.93	1.05	0.30	3.68
	Retired and Pensioner	14	50%	14	50%	<0.01	2.10	1.26	3.52
	Not retired	16	80%	4	20%	0.72	0.84	0.32	2.17
Recent grieving	No <sub>ref.</sub>	78	72.2%	30	27.8%	_	_	-	_
	Yes	32	71.1%	13	28.9%	0.88	1.04	0.60	1.80
	No <sub>ref.</sub>	98	70.5%	41	29.5%	-	-	-	-
Living groups	Yes	12	85.7%	2	14.3%	0.27	0.48	0.13	1.79

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Table 1 - Bivariate model of depression and sociodemographic data

		Without symptoms of depression		With symptoms of depression		р	Gross RP	CI 95%	
									Superior
Chronic disease	No <sub>ref</sub>	49	84.5%	9	15.5%	-	-	-	-
Chronic disease	Yes	61	64.2%	34	35.8%	0.01	2.30	1.19	4.45

Source: research data/2015. ref. - Reference variable for comparison. \* Data not estimated due to absence of frequency.

Table 2 - Multivariate model of depression and sociodemographic data

		В	D - (   (D)		DD	CI 95%		
			Default error (B)		RP set		Superior	
Gender	Male <sub>ref.</sub>	-	-	-	-	-	-	
	Female	0.58	0.35	0.09	1.79	0.90	3.56	
Marital status	Married <sub>ref.</sub>	-	-	-	-	-	-	
	Widowed	0.86	0.70	0.22	2.38	0.59	9.53	
	Divorced	1.38	0.64	0.03	3.97	1.13	13.97	
	Single	0.96	0.71	0.17	2.62	0.64	10.62	
Religion	Catholic <sub>ref.</sub>	-	-	-	-	-	-	
	Evangelic	-0.44	0.54	0.42	0.64	0.21	1.89	
	Without religion	0.85	0.33	0.01	2.34	1.23	4.55	
Family arrangement	Single <sub>ref.</sub>	-	-	-	-	-	-	
	With a partner and Family members	0.11	0.55	0.84	1.11	0.37	3.32	
	With Family members (without a partner)	-0.39	0.34	0.25	0.67	0.33	1.33	
Social security situation	Retired <sub>ref.</sub>	-	-	-	-	-	-	
	Pensioner	-0.29	0.69	0.67	0.74	0.19	2.91	
	Retired and Pensioner	0.50	0.40	0.21	1.65	0.74	3.67	
	Not retired	0.44	0.47	0.35	1.55	0.61	3.96	
Chronic disease	No <sub>ref.</sub>	-	-	-	-	-	-	
	Yes	0.83	0.33	0.01	2.29	1.18	4.42	

Source: research data/2015. ref. - Reference variable for comparison.

It is noteworthy that, although common in the elderly population, depression is often underdiagnosed and untreated. The diagnosis of depression is essentially clinical, but the rates of recognition of depressive symptoms and the consequent institution of appropriate treatment are low, especially in basic care. In general, health professionals see depressive symptoms as normal manifestations disincentives of the aging process or confuse them with anxiety and sadness. Failure to diagnose and lack of adequate intervention may lead to poorer prognosis and physical, social and functional impairment, causing a negative impact on the elderly's quality of life.<sup>21</sup>

Therefore, important associations of depressive symptomatology with sociodemographic variables were observed in this study. The literature highlights that these associations reflected in social inequalities influence health and living conditions and may contribute to the appearance of depressive symptoms or aggravate the pre-existing symptoms.<sup>17</sup>

In this study, associations that were statistically significant involved the following variables: gender, marital status, religion, family arrangement, social security status, and comorbidities. However, those that prevailed significantly after multivariate association test, making them important to be highlighted as factors associated with the symptoms of depression were the female elderly, the divorced, those who did not have a religion and those who reported having a chronic disease.

The literature shows that women are the most vulnerable to the development of depressive symptoms during old age. One of the possible explanations is that they live on average more than men and more advanced ages are accompanied by a higher incidence of chronic diseases, such as depression. Also,

hormonal changes in the climacteric, such as decreased selfesteem, irritability, reduced concentration, memory, and libido may contribute to the manifestation of depressive symptoms.<sup>19</sup>

Divorced elderly people tend to have a higher prevalence of depression symptoms, characterizing loneliness as a possible risk factor for the development of these symptoms. Studies have claimed that partner loss has been associated with mental and physical decline, with depressive symptoms occurring about two to six months after the loss. In this way, it may represent an event of overload, increasing vulnerability to health problems.<sup>22,23</sup>

It is observed that elderly people who do not have religion have a higher prevalence of depressive symptoms, a condition to highlight given the contribution of religiosity/spirituality to the well-being of the elderly since the religion exerts more impact for the individual in the factors related to culture. By attending religious activities, the chances of social interaction are increased, establishing and strengthening new bonds of friendship, as well as enabling participation in cultural and leisure activities, stimulating socializing and socialization, characterized as a coping or relief from depression. The experience of spirituality can help overcome difficult moments, the losses of aging and the health-disease process, giving social support and enabling better health and quality of life.<sup>14</sup>

Regarding the association between depression and chronic diseases, musculoskeletal diseases have a greater impact on quality of life than systemic arterial hypertension and diabetes mellitus. Often associated with limitations of mobility, eating, physical activity, and activities of daily living, these diseases often restrict the functional independence of the elderly, impairing the quality of life and leading to mood disorders and depression.<sup>24</sup> Study shows that 35 to 45% of elderly people with physical illnesses and disabilities present with depressive syndromes.<sup>25</sup>

Besides to higher prevalence, when associated with chronic diseases, depression increases morbidity and mortality, causing worsening of quality of life and burdening the health system. Thus, a greater number of morbidities in the elderly is associated with worse quality of life in the psychological domain and can contribute to the advent of negative feelings. It is emphasized that the non-identification and non-treatment of depression contributes to the aggravation of already installed organic diseases, further increasing morbidity and the risk of death.<sup>26-28</sup>

# FINAL CONSIDERATIONS

It was found that, in general, the results of this study are consistent with data found in the national and international literature, detecting a significant prevalence of depression symptoms in the elderly.

It is understood that, for the diagnosis and early treatment of patients with depressive symptomatology, it is necessary to un-

derstand that some patients with certain sociodemographic and health characteristics are more vulnerable to depression. It is essential to raise the attention of health professionals, especially those who exercise their practice in basic care, to the importance of conducting strategies aimed at identifying depressive symptoms and associated factors, with the purpose of early diagnosis and appropriate intervention in prevention or treatment of the disease.

Therefore, consultation with a more comprehensive and qualified assessment of the elderly in primary care is important. It is ideal for professionals to use in their practice instruments that facilitate their research, such as the Geriatric Depression Scale, and to develop integral health actions that promote autonomy and participation of the elderly in the community, following the guidelines of the National Health Policy, seeking to understand that social, cultural and subjective factors are associated with the health and quality of life of the elderly, awakening the need for holistic care.

This study is relevant to subsidize and disseminate discussions about this topic, as well as to reaffirm the need for changes in the assistance to the elderly of basic health services, emphasizing strategies aimed at prevention, intervention in risk factors, early diagnosis, and treatment of depression.

Conducting the research in only one basic health unit is presented as a limitation of the study, making its generalization unfeasible, but arousing interest in carrying out a more comprehensive study in the region.

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