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ORIGINAL ARTICLE / *ARTIGO ORIGINAL*

Depressive symptoms in elderly living in areas covered by Primary Health Care Units in urban area of Bagé, RS

Sintomas depressivos em idosos residentes em áreas de abrangência das Unidades Básicas de Saúde da zona urbana de Bagé, RS

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ABSTRACT: ***Objective:*** To identify the prevalence of depressive symptoms and associated factors in elderly. ***Methods:*** Cross-sectional study of population-based sample of 1,593 individuals aged 60 years or more in the urban area of Bagé, Rio Grande do Sul, Brazil, in 2008. Data were collected in household interviews. The prevalence of depressive symptoms was assessed using the Geriatric Depression Scale. The analysis was performed using Poisson regression with robust variance estimation. ***Results:*** The prevalence of depressive symptoms was 18.0%, with the 95% confidence interval 16.1 – 19.9. The majority of the sample consisted of women (62.8%). The mean age was 70 years, with a 8.24 standard deviation (SD); 25.1% of seniors aged 60 to 64 years and 31.2% were 75 years or older. In the adjusted analysis, depressive symptoms were significantly associated (p value < 0.05) with the elderly female, yellow, brown or indigenous descendancy, lower economic status, retired, with history of heart problems, incapacity to basic and instrumental activities of daily living, worse self-rated health and dissatisfaction with life in general. Age, marital status, education, self-reported hypertension and diabetes were not associated with depressive symptoms after adjusting for confounders. ***Conclusion:*** The high prevalence of depressive symptoms in the population requires investment in preventive actions, noting the need for practices that promote active aging with the maintenance of functional activity, improving self-rated health and life satisfaction.

Keywords: Primary health care. Aged. Depression. Mental health. Aging. Epidemiology.

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RESUMO: ***Objetivo:*** Identificar a prevalência de sintomas depressivos e os fatores associados na população idosa. ***Métodos:*** Estudo transversal de base populacional, com amostra de 1.593 indivíduos com 60 anos ou mais da zona urbana de Bagé, Rio Grande do Sul, em 2008. Os dados foram coletados em entrevistas domiciliares. A prevalência de sintomas depressivos foi avaliada através da Escala de Depressão Geriátrica. A análise foi realizada utilizando modelo de regressão de Poisson com estimativa robusta de variância. ***Resultados:*** A prevalência de sintomas depressivos foi de 18,0%, com intervalo de confiança de 95% (IC95%) de 16,1 – 19,9. A maioria da amostra foi composta por mulheres (62,8%). A média de idade foi 70 anos, com desvio padrão de 8,24; 25,1% dos idosos tinham entre 60 e 64 anos e 31,2% tinham 75 anos ou mais. Na análise ajustada, os sintomas depressivos foram estatisticamente associados (valor $p < 0,05$) aos idosos do sexo feminino, cor da pele amarela, parda ou indígena, menor classificação econômica, aposentados, com histórico de problemas cardíacos, com incapacidade para atividades básicas e instrumentais da vida diária, pior autopercepção de saúde e insatisfação em sua vida em geral. A variável idade, situação conjugal, escolaridade, hipertensão e diabetes autorreferidas não apresentaram associação com sintomas depressivos após ajustes para fatores de confusão. ***Conclusão:*** A alta prevalência de sintomas depressivos na população requer investimento em ações de prevenção, atentando para a necessidade de práticas que promovam o envelhecimento ativo com a manutenção da atividade funcional, contribuindo para a melhoria da autopercepção de saúde e de satisfação com a vida.

Palavras-chave: Atenção primária à saúde. Idoso. Depressão. Saúde mental. Envelhecimento. Epidemiologia.

INTRODUCTION

Mental disorders are considered to be responsible for functional incapacities, reduced quality of life, more health expenses, besides problems in personal relationships[1]. Among the most prevalent disorders in the world, depression and the substance use disorders[2].

In depression screening, it is important to pay attention to depressive symptoms that include depressed mood, anhedonia (loss of interest or pleasure inactivities once enjoyed), sleep problems, change in appetite or weight[3,4], characteristic symptoms of Major Depressive Disorder (MDD) and/or Major Depressive Episode (MDE). Depressive symptoms compromise the quality of life among the elderly, as well as their relationship with family members and society. There is evidence of increasing risk of mortality[5] and the need for differentiated care in health services[6].

In epidemiological studies, screening instruments are mostly indicated and used due to their ability to identify individuals with depressive symptoms; however, they do not characterize the depression diagnosis.

There is variability in the prevalence of depressive symptoms among the elderly in different parts of the world, depending on social, cultural, ethnic characteristics and morbidities, including variations in the same country. A study conducted in nine European cities with individuals aged 65 years old or more, living in the community, identified, in average, a 12.3% prevalence of depressive symptoms, with 95% confidence interval (95%CI) of 11.8 – 12.9, being 14.1% among women (95%CI 13.5 – 14.8) and 8.6% among male individuals (95%CI – 7.9 – 9.3)[7].

In Brazil, population-based studies that assessed depressive symptoms among the elderly were conducted in the states of Paraíba[8], São Paulo[9], Rio Grande do Sul[10], Rio Grande do Norte[11] and Minas Gerais[12]. The observed prevalence ranged between 18.8 (95%CI 16.8 – 20.8) and 38.5% (95%CI 36.0 – 41.0).

According to literature review, most studies observed high prevalence of depressive symptoms among women, older elders, the ones who did not live with a partner, with lower schooling and income, who presented comorbidities with other chronic diseases and who had a poorer health status self-evaluation.

The etiology of depressive symptoms is still unknown. It is possible to say that it is a multifactorial set determined by psychosocial, biological, cultural, socioeconomic or family issues, or even by the association of pathologies coexisting with chronic diseases, functional incapacities or dementia[13].

In general, health professionals see depressive symptoms as normal manifestations of the aging process, or they confuse them with anxiety and sadness[13,14]. The flawed diagnosis and the inexistence of adequate management may result in worse prognosis and also in physical, social and functional impairment, causing a negative impact on the quality of life of the elderly[13]. Therefore, both the interaction of the elderly and the environment in which they live are related with the binomial health and disease in the aging process[15].

The objective of this study was to identify the prevalence of depressive symptoms and factors associated with the elderly population of the city of Bagé, Rio Grande do Sul. Understanding the occurrence of depressive symptoms and their correlatives among the elderly in the population is important to identify priority groups in the organization of the demand and care provided in health services.

METHODS

This is a cross-sectional population-based study* conducted in 2008. The study population was composed of individuals aged 60 years old or more, living in the area comprehended by the 20 basic health units (UBS) of the urban zone of Bagé, Rio Grande

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do Sul. Out of this total, 15 UBSs worked with the family health strategy program, and 5 had the traditional care model, thus covering the entire urban population.

LOGISTIC PROCEDURES OF FIELD WORK

The logistics for data collection initiated with the delimitation of the area comprehended by each one of the UBSs, followed by its division into micro-areas and the numeration of respective blocks. The starting point for data collection was randomly selected in each block. The households located to the left were considered to be eligible. One out of five households was selected to favor the sample dispersion in the area. All of the elderly people living in the household were invited to participate in the study. Interviews that were not conducted after three attempts on different days and times were considered as losses/refusals. No replacements were admitted. Data were collected by structured questionnaires with pre-codified questions.

OUTCOME MEASURES AND INDEPENDENT VARIABLES

Depressive symptoms were investigated by using the Geriatric Depression Scale (GDS 15). This scale has 15 items and offers valid measures to screen MDE according to the criteria of ICD-10 and the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV). The items of the instrument are composed of questions with dichotomous responses (yes/no), and refer to the feeling of the elders on most of the 30 days prior to the interview. The symptoms assessed by the GDS include satisfaction towards life, lack of interest and energy to perform activities, irritability, mood and hopelessness. The cutoff point used in this study was of 5/6 (non-case/case), recommended by Almeida and Almeida[15], who validated the scale in Brazil. It presented 85.4% sensitivity and 73.9% specificity.

Demographic and socioeconomic variables used in this analysis were: sex (female and male), age (60 to 64 years old; 65 to 69 years old; 70 to 74 years old; 75 years old or more), marital status (married or with a partner; widower; single or divorced), schooling (no schooling; 1 to 7 years; 8 years or more), socioeconomic classification collected according to the Brazilian Association of Companies and Research (ABEP) and categorized (A/B; C; D/E), retirement at National Institute of Social Security (INSS) (yes; no). The presence of morbidity was questioned with self-reported (yes; no) medical diagnosis of hypertension, diabetes and heart condition. The self-perception

of health was categorized as terrible or bad, regular, great or good, and satisfaction with life was divided into satisfied or dissatisfied.

In order to identify the presence of functional incapacity, the Katz[16] and Lawton and Brody's[17] scales were used. Basic incapacities for activities of daily living (ADL) are related to self-care and investigate the presence of autonomy (doing things on their own or needing help) to eat, take showers, get dressed, move, walk, go to the bathroom and control physiological needs[13]. The incapacity for instrumental activities of daily living (IADL) is related to the participation of the elderly in their social surroundings, independently, including the use of transportation, the manipulation of medicines, the act of going shopping, doing light and heavy domestic chores, using the phone, preparing meals and caring for their own finances[13]. The presence of functional incapacity was considered when they needed help with at least one of the ADL or IADL.

DATA ANALYSIS

Data analysis was conducted in the statistical software Stata 12. Descriptive analysis included percentage calculations and 95%CI for categorical variables[18]. The Poisson regression was used with robust variance estimation, by calculating crude and adjusted prevalence ratios and 95%CI[19]. For data analysis, a hierarchical model was used to determine depressive symptoms. The adjusted analysis maintained, in each level, variables with p-value < 0.20, in order to consider the effect of each variable with regard to the outcome, controlling confounding factors in the same level or in upper levels. The model of analysis included the following variables in the first level: sex, age, skin color, schooling, marital status, economic status and retirement. In the second level: self-reported medical diagnosis of hypertension, diabetes, heart problems and functional incapacities. The third level included health self-perception and satisfaction towards life. Statistically significant associations were considered and used in the Wald heterogeneity test and in linear trend when $p < 0.05$.

ETHICAL ASPECTS

The study was approved by the Ethics Committee of the Medical School of Universidade Federal de Pelotas. The ethical principles were assured by the informed consent form of the interviewees, the guaranty of the right to not participate in the study and the anonymity in the publication of results.

RESULTS

The adopted logistics enabled to identify 1,713 individuals aged 60 years old or more, out of whom 1,593 participated in the study, and 1,514 elders answered the questions related to the outcome. Loss and refusal percentages were 4 and 3%, respectively.

Table 1 presents the characteristics of the studied population, crude and adjusted analysis. Women represented 62.8% of the interviewers. Mean age was of 70 years old (SD = 8.24); 25.1% of the elders were aged between 60 and 64 years old, and 31.2% were 75 years old or more. Most of them self-reported having white skin colour (78.6%), approximately half of the individuals were married or lived with a partner (51.3) and had 1 to 7 schooling years (54.5%). Most of them (38.9%) belonged to the C economic class and more than two thirds (71.7%) were retired.

The percentage of individuals who self-reported medical diagnosis of hypertension, heart condition and diabetes was, respectively, of 55.3; 29.6 and 15.1%. The prevalence of incapacity for basic activities of daily living was of 10.6%, and the prevalence of incapacity for instrumental activities of daily living was of 34.2%. With regard to health self-perception, 58.8% perceived their health as being good or great, and approximately 95% of the elderly reported being satisfied towards life. The prevalence of depression in the elderly population from the urban area of Bagé was of 18.0% (95%CI 16.1 – 19.9), being 20.5% in the areas covered by family health strategy, and 15.1% in traditional basic care areas (p = 0.006).

In the crude analysis, all of the variables were associated with depressive symptoms. In the adjusted analysis, the prevalence of depression among women was almost twice as high as that among men (PR = 1.60; 95%CI 1.23 – 2.08).

Asian, mulatto or indigenous individuals had almost 50.0% more depressive symptoms than white individuals. Elderly people from classes D/E had higher prevalence of depressive symptoms when compared to individuals in classes A/B (PR = 1.65; 95%CI 1.21 – 2.27). Retired elderly people presented lower prevalence of depressive symptoms than those who were not retired (PR = 0.77; 95%CI 0.61 – 0.97). With regard to self-reported diseases, elderly people with heart condition presented almost 30.0% more prevalence of depressive symptoms in comparison to those who did not report heart conditions. Individuals with incapacity for ADL and IADL presented twice as many depressive symptoms as those who did not present with functional incapacities (PR = 2.07; 95%CI 1.59 – 2.69) and incapacity in instrumental activities of daily living (PR = 1.82; 95%CI 1.43 – 2.33). Depressive symptoms presented linear trend in the association with health self-perception, that is, those with regular (PR = 2.19; 95%CI 1.69 – 2.85) and terrible/bad self-perception (PR = 3.24; 95%CI 2.34 – 4.49) had higher prevalence of depressive symptoms when compared to elderly with good or great health evaluation. Those who were dissatisfied with life had twice as many depressive symptoms when compared to satisfied individuals.

Table 1. Sample description, crude and adjusted analysis of depressive symptoms and independent variables in the elderly population. Bagé, Rio Grande do Sul, 2008 (n = 1,593).

Variables	Description n (%)	Depressive symptoms (%)	Crude analysis PR (95%CI)	Adjusted analysis PR (95%CI)
Level 1				
Sex			p < 0.001	p < 0.001
Male	593 (37.2)	12.3	1	1
Female	1000 (62.8)	21.4	1.74 (1.35 – 2.23)	1.60 (1.23 – 2.08)
Age (years)			p = 0.038	p = 0.051
60 to 64	400 (25.1)	18.0	1	1
65 to 69	374 (23.5)	13.2	0.73 (0.52 – 1.03)	0.75 (0.54 – 1.05)
70 to 74	322 (20.2)	21.1	1.18 (0.87 – 1.59)	1.19 (0.87 – 1.62)
75 or older	497 (31.2)	19.8	1.10 (0.83 – 1.46)	1.09 (0.82 – 1.46)
Skin color (self-reported)			p = 0.021	p = 0.044
White	1252 (78.6)	17.0	1	1
Black	139 (8.7)	17.1	1.01 (0.67 – 1.50)	0.96 (0.65 – 1.43)
Asian/Mulatto/Indigenous	202 (12.7)	25.0	1.47 (1.12 – 1.94)	1.41 (1.07 – 1.86)
Marital status			p < 0.001	p = 0.256
Married/with partner	816 (51.3)	14.0	1	1
Single/separated	238 (14.9)	19.9	1.42 (1.03 – 1.95)	1.16 (0.84 – 1.62)
Widowed	538 (33.8)	23.3	1.66 (1.31 – 2.10)	1.26 (0.96 – 1.65)
Schooling (years)			p = 0.001*	p = 0.290
No schooling	372 (23.7)	23.1	1.75 (1.25 – 2.45)	1.34 (0.90 – 2.01)
1 to 7	858 (54.5)	17.4	1.32 (0.96 – 1.81)	1.13 (0.80 – 1.61)
≥ 8	342 (21.8)	13.2	1	1
Economic status (ABEP)			p < 0.001*	p = 0.001*
A/B	429 (27.1)	12.0	1	1
C	615 (38.9)	18.3	1.53 (1.12 – 2.10)	1.41 (1.02 – 1.94)
D/E	537 (34.0)	22.3	1.86 (1.37 – 2.54)	1.65 (1.21 – 2.27)
Retirement			p = 0.001	p = 0.026
No	451 (28.3)	23.0	1	1
Yes	1142 (71.7)	16.0	0.70 (0.56 – 0.87)	0.77 (0.61 – 0.97)
Level 2				
Self reported hypertension			p = 0.032	p = 0.706
No	712 (44.7)	15.6	1	1
Yes	881 (55.3)	19.9	1.28 (1.02 – 1.59)	1.05 (0.83 – 1.32)
Self reported diabetes			p = 0.044	p = 0.381
No	1352 (84.9)	17.2	1	1
Yes	241 (15.1)	22.7	1.32 (1.01 – 1.73)	1.12 (0.87 – 1.46)
Self reported hearth problem			p = 0.001	p = 0.032
No	1122 (70.4)	15.9	1	1
Yes	471 (29.6)	23.1	1.45 (1.17 – 1.81)	1.27 (1.02 – 1.57)
Incapacity for ADL			p < 0.001	p < 0.001
No	1424 (89.4)	15.5	1	1
Yes	169 (10.6)	47.4	3.05 (2.43 – 3.83)	2.07 (1.59 – 2.69)
Incapacity for IADL			p < 0.001	p < 0.001
No	1045 (65.8)	12.7	1	1
Yes	544 (34.2)	29.6	2.33 (1.88 – 2.87)	1.82 (1.43 – 2.33)
Level 3				
Health self-evaluation			p < 0.001*	p < 0.001*
Great/Good	906 (58.8)	9.2	1	1
Regular	525 (34.1)	24.9	2.70 (2.09 – 3.48)	2.19 (1.69 – 2.85)
Terrible/Bad	109 (7.1)	57.7	6.25 (4.80 – 8.14)	3.24 (2.34 – 4.49)
Satisfaction towards life			p < 0.001	p < 0.001
Satisfied	1449 (94.3)	14.7	1	1
Dissatisfied	87 (5.7)	72.6	4.93 (4.12 – 5.92)	2.27 (1.77 – 2.93)

PR: prevalence rate; 95%CI: 95% confidence interval; ABEP: Brazilian Association of Companies and Research; ADL: activities of daily living; IADL: instrumental activities of daily living.

DISCUSSION

The prevalence of depressive symptoms in the elderly population of Bagé aged 60 years old or more was of 18.0%, and the difference in the prevalence of depressive symptoms among the elderly in the basic care model was of 20.5% in areas covered by the family health strategy, and 15.1% in traditional basic care areas ($p = 0.006$).

There was an association between depressive symptoms and the female sex, Asian, mulatto or indigenous descendancy, lower economic status, report of heart conditions, incapacity for basic and instrumental activities of daily living, worse health self-perception and dissatisfaction with life in general.

The analysis Health, Well-Being and Aging (SABE), conducted in São Paulo, in 2000 ($n = 2,143$), with individuals in the same age group, identified similar prevalence of depressive symptoms (18.1%), with an important differential between men and women (12.7 and 22.0%, respectively)[20]. However, a study conducted in Santa Cruz, Rio Grande do Norte, in 2002, with 310 elderly people aged more than 60 years old, identified prevalence of depression of 25.5%[11]. Both studies are population-based and used the Geriatric Depression Scale (GDS). In Bambuí, Minas Gerais, in 2008, by using the General Health Questionnaire (GHQ-12), it was detected that 38.5% of the elderly people presented depressive symptoms[12].

The higher prevalence of depressive symptoms among females could be explained by the social issues to which women are exposed, such as domestic violence and discrimination concerning access to education, income, food and work, health care and social security[20]. A systematic review that gathered 116 analyses of prevalence and 4 studies of incidence shows the consistency of such an association[21], but the causal explanations for its occurrence are still insufficient. Piccinelli et al.[22], in a critical review about the different prevalence of depression among genders, gather a series of explanatory factors, especially in the household environment, with experiences from childhood that could determine psychic response patterns to stressful events, and the female gender would be more vulnerable; besides, there is higher risk for depressive episodes at earlier ages for women, and this is an important predictive factor for future depressive episodes. The feminization in the aging process increments the occurrence of chronic health conditions, social isolation and emotional disorders resulting from retirement, widowhood and physiological changes[23].

In this study, retirement proved to be a protective factor against depression, maintaining a positive association even after adjustment for possible confounding factors. Therefore, income is an important aspect to preserve the autonomy; economic inactivity may prevent the access to adequate care and the acquisition of medicines to maintain the treatment for chronic and impairing diseases, thus reflecting on the quality of life of the elderly[11].

Some authors emphasize that elderly people who are not registered in governmental income transfer programs, and have no other economic resource available, may be mentally and physically impaired, thus reflecting on social isolation that is characteristic of people with severe diseases[24].

There has been a significant association between depressive symptoms and heart conditions. Elderly people who self-reported heart condition presented higher probability of developing depressive symptoms in comparison to those without heart issues (PR = 1.27), maybe because of dietary restrictions and more physical and economic dependence, resulting from chronic diseases, besides social reclusion[25]. Therefore, depressive symptoms seem to affect, among other things, adherence to medication and health care in individuals with heart conditions[26]. Even though most elderly people have some kind of chronic disease, not all of them are incapacitating; some of them have a normal life and can control their diseases; besides, they express satisfaction towards life[25].

The presence of functional incapacities practically doubled the chances of depressive symptoms. Considering that ADL and IADL are essential and require elaboration, coordination and skill, a minimal change in these functions can lead to loss of autonomy and consequent social isolation, besides the possibility of developing any impairment and generating feelings of anxiety and insecurity; this can trigger a depressive episode[11].

The association of depressive symptoms and heart conditions or functional incapacity reinforces the need to monitor physical and psychic conditions of the elderly. Even though it seems like heart problems and functional incapacities precede depressive symptoms, this likely fact should be assessed with caution, once the design of this study is subjected to reverse causality.

Health self-perception has proved to be a powerful health indicator, since it is associated with chronic diseases and mortality[27-29]. This indicator can be used as a predictor of survival, contemplating aspects of physical and psychic health, being associated with the real health status of the elder and translating the objective representations of health[30].

In Bagé, health self-perception has been strongly associated with the presence of depressive symptoms, practically triplicating its prevalence among individuals who assessed it as bad or terrible when compared to those with good or great self-perception.

Dissatisfaction towards life was also strongly associated with depressive symptoms. This is a simple question, easy to apply in the routine, so it can be a marker to screen for depressive symptoms.

According to Ramos[25], the concept of health, according to the World Health Organization, has to be carefully analyzed when it comes to the elderly. In this population, the absence of diseases is a privilege for only a few, but when properly controlled, they will allow the person to have good quality of life. Besides, the

healthy aging process is a result of balanced factors, such as autonomy, physical and economic independence, functional capacity and social support, without necessarily the absence of diseases[25].

CONCLUSION

The prevalence of depressive symptoms in the population requires investment in actions of health promotion, focusing on practices that can stimulate an active aging process, and decrease functional incapacity.

The cross-sectional design used in this study enabled to identify the prevalence of depressive symptoms in a representative sample of the elderly living in areas covered by the family health strategy and in areas of traditional basic care in the urban zone of the city of Bagé, Rio Grande do Sul. This is an original finding, once no other studies showing this result were identified. However, the possibility of reverse causality stands out, for instance, in the associations of the outcome with the health self-evaluation and satisfaction towards life. But they remained in the analysis, since they are relevant to plan for health actions related to elderly care. The other findings confirm the pattern of prevalence and associations found in other studies, in different periods and places, by using the same instrument.

As a consequence, it is recommended to use GDS 15 in the routine of basic care services in order to guide the intervention of health professional, thus preventing the problem from getting worse and improving the quality of life among the elderly.

Knowing the factors associated with depressive symptoms can assist managers and other health professionals when it comes to facing the challenge of ensuring a healthy aging process to the population, reinforcing the priority to mental health in basic care and assuring citizenship and dignity. Therefore, it is necessary to invest and improve the health conditions of the elderly people, focusing on maintaining physical independence and autonomy, without putting aside economic conditions and social support.

So, facing the process of population aging, it is recommended that health professionals implement efficient strategies for elderly care in health services, as well as the strengthening of formal relationships and the early identification of risks of depressive symptoms, like limited functional capacity that generate dissatisfaction towards life.

REFERENCES

1. Kessler RC, Aguilar-Gaxiola S, Alonso J, Chatterji S, Lee S, Ormel J, et al. The global burden of mental disorders: an update from the WHO World Mental Health (WMH) surveys. Epidemiol Psichiatr Soc 2009; 18(1): 23-33.
2. World Health Organization (WHO). Envelhecimento ativo: uma política de saúde. Brasília: Organização Pan-Americana da Saúde; 2005. 60 p.
3. Organização Mundial da Saúde (OMS). CID-10: Classificação de Transtornos Mentais e de Comportamento. Descrições clínicas e diretrizes diagnósticas. Porto Alegre: Artes Médicas; 1993.
4. American Psychiatric Association (APA). Manual diagnóstico e estatístico de transtornos mentais (DSM-IV). Porto Alegre: Artes Médicas; 1994.
5. Burvill PW, Knuiman MW. The influence of minor psychiatric morbidity on consulting rates to general practitioners. Psychol Med 1983; 13(3): 635-43.
6. Veras R. Envelhecimento populacional contemporâneo: demandas, desafios e inovações. Rev Saúde Pública 2009; 43(3): 548-54.
7. Copeland JR, Beekman AT, Braam AW, Dewey ME, Delespaul P, Fuhrer R, et al. Depression among older people in Europe: the EURODEP studies. World Psychiatry 2004; 3(1): 45-9.
8. Oliveira MF, Bezerra VP, Silva AO, Alves MS, Moreira MA, Caldas CP. [The symptomatology of self-referred depression by elderly people who live in a shantytown]. Ciên Saúde Colet 2012; 17(8): 2191-8.
9. Alexandrino-Silva C, Alves TF, Tófoli LF, Wang YP, Andrade LH. Psychiatry: life events and social support in late life depression. Clinics (São Paulo) 2010; 66(2): 233-8.
10. Blay SL, Batista AD, Andreoli SB, Gastal FL. The relationship between religiosity and tobacco, alcohol use, and depression in an elderly community population. Am J Geriatr Psychiatry 2008; 16(11): 934-43.
11. Maciel ÁCC, Guerra RO. Prevalência e fatores associados à sintomatologia depressiva em idosos residentes no Nordeste do Brasil. J Bras Psiquiatr 2006; 55(1): 26-33.
12. Castro-Costa E, Lima-Costa MF, Carvalhais S, Firmo JOA, Uchoa E. Factors associated with depressive symptoms measured by the 12-item General Health Questionnaire in Community-Dwelling Older Adults (The Bambui Health Aging Study). Rev Bras Psiquiatr 2008; 30(2): 104-9.
13. Brasil. Ministério da Saúde. Caderno de Atenção Básica: Envelhecimento e Saúde da Pessoa Idosa. Brasília: Ministério da Saúde; 2006.
14. Snowdon J. How high is the prevalence of depression in old age? Rev Bras Psiquiatr 2002; 24(Suppl 1): 42-7.
15. Almeida OP, Almeida SA. Confiabilidade da versão brasileira da Escala de Depressão em Geriatria (GDS) versão reduzida. Arq Neuro-Psiquiatr 1999; 57(2B): 421-6.
16. Katz S, Ford AB, Moskowitz RW, Jackson BA, Jaffe MW. Studies of illness in the aged. The index of ADL: a standardized measure of biological and psychosocial function. JAMA 1963; 185: 914-9.
17. Lawton MP, Brody EM. Assessment of older people: self-maintaining and instrumental activities of daily living. Gerontologist 1969; 9(3): 179-86.
18. Barros AJ, Hirakata VN. Alternatives for logistic regression in cross-sectional studies: an empirical comparison of models that directly estimate the prevalence ratio. BMC Med Res Methodol 2003; 3: 21-4.
19. Victora CG, Huttly SR, Fuchs SC, Olinto MT. The role of conceptual frameworks in epidemiological analysis: a hierarchical approach. Int J Epidemiol 1997; 26(1): 224-7.
20. Lebrão ML, Laurenti R. Saúde, bem-estar e envelhecimento: o estudo SABE no Município de São Paulo. Rev Bras Epidemiol 2005; 8(2): 127-41.
21. Ferrari AJ, Somerville AJ, Baxter AJ, Norman R, Patten SB, Vos T, et al. Global variation in the prevalence and incidence of major depressive disorder: a systematic review of the epidemiological literature. Psychol Med 2012; 43(3): 471-81.
22. Piccinelli M, Wilkinson G. Gender differences in depression: critical review. Br J Psychiatry 2000; 177: 486-92.
23. Lima LCV, Bueno, CMLB. Envelhecimento e gênero: a vulnerabilidade de idosas no Brasil. Saúd Pesq 2009; 2(2): 273-80.
24. Camarano AA. Envelhecimento da população brasileira: uma contribuição demográfica. In: Freitas EV, Py L, Neri AL, Cançado FAX, Gorzoni ML, Rocha SM (eds). Tratado de Geriatria e Gerontologia. Rio de Janeiro: Guanabara Koogan; 2006.
25. Ramos LR. Fatores determinantes do envelhecimento saudável em idosos residentes em centro urbano: Projeto Epidoso, São Paulo. Cad Saúde Pública 2003; 19(3): 793-8.
26. Connerney I, Shapiro PA, McLaughlin JS, Bagiella E, Sloan RP. Relation between depression after coronary artery bypass surgery and 12-month outcome: a prospective study. Lancet 2001; 358(9295): 1766-71.

27. Benjamins MR, Hummer RA, Eberstein IW, Nam CB. Self-reported health and adult mortality risk: an analysis of cause-specific mortality. Soc Sci Med 2004; 59(6): 1297-306.
28. Sundquist J, Johanson SE. Self reported poor health and low educational level predictors for mortality: a population based follow up study of 39,156 people in Sweden. J Epidemiol Community Health 1997; 51(1): 35-40.
29. Vuorisalmi M, Lintonen T, Julhä M. Global self-rated health data from a longitudinal study predicted mortality better than comparative self-rated health in old age. J Clin Epidemiol 2005; 58(7): 680-7.
30. Alvarenga MRM, Oliveira MAC, Faccenda O, Cerchiari EAN, Amendola F. Sintomas depressivos em idosos assistidos pela estratégia de saúde da família. Cogitare Enferm 2010; 15(2): 217-24.

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