



Depressive symptoms and associated factors in elderly people in the Primary Health Care

Sintomas depressivos e fatores associados em idosos na Atenção Primária à Saúde

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Objective: to analyze depressive symptoms and its associated factors, the use of antidepressants and the presence of a diagnosis of depression in the elderly. **Methods:** cross-sectional study with 248 elderly people attended in Basic Health Units using the Geriatric Depression Scale - Short Form. A chi-square test, the odds ratio and a binary logistic regression were used to analyze the data. **Results:** depressive symptoms were identified in 32.7% of the elderly, 25.4% with scores indicative of mild depression and 7.3% of severe depression. Physical activity and comorbidities were the factors associated with the presence of depressive symptoms. Among the elderly, 22.2% presented a previous diagnosis of depression and 17.0% of them used antidepressants. **Conclusion:** depressive symptoms were associated with physical inactivity and comorbidities. Fewer than half of the elderly with indicatives of severe depression used antidepressants. The report of a previous diagnosis of depression was more frequent than the indicatives of severe depression.

Descriptors: Depression; Antidepressive Agents; Aged; Primary Health Care.

Objetivo: analisar sintomas depressivos e fatores associados, a utilização de antidepressivo e a presença de diagnóstico de depressão em idosos. **Métodos:** estudo transversal, com 248 idosos atendidos em Unidades Básicas de Saúde, utilizando a Escala Geriátrica de Depressão abreviada. Para análise dos dados, foi realizado o teste do Qui-quadrado, a razão de chances e a regressão logística binária. **Resultados:** os sintomas depressivos apareceram em 32,7% dos idosos, 25,4% com indicativo de depressão leve e 7,3% de depressão grave. A atividade física e as comorbidades foram os fatores associados à presença dos sintomas depressivos. Apresentaram diagnóstico prévio de depressão 22,2% dos idosos e 17,0% utilizavam antidepressivo. **Conclusão:** os sintomas depressivos foram associados à inatividade física e comorbidades. Menos da metade dos idosos que apresentaram indicativo de depressão grave utilizavam antidepressivo. O relato de diagnóstico anterior de depressão foi maior que o indicativo de depressão grave.

Descritores: Depressão; Antidepressivos; Idoso; Atenção Primária à Saúde.

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Introduction

Depression stands out as a relevant public health problem and is considered the main cause of mental disorder worldwide⁽¹⁾. Depressive disorders, including depression, dysthymia and other mood disorders, are characterized by the presence of sadness, emptiness or irritability associated with somatic and cognitive alterations that have repercussions on the functional capacity of the individuals. The intensity, duration, moment and presumed etiology allow the diagnosis and appropriate treatment of the problem⁽²⁾.

Major depressive disorder or depression is characterized by distinct episodes with a minimum duration of two weeks of clear affective, cognitive and neurovegetative changes, with intervals of remissions⁽²⁾. The change in mood or affective state is manifested in physical symptoms of altered patterns of sleep, appetite and fatigue, and psychological symptoms of decreased self-esteem, feelings of worthlessness, loss of interest or joy, and reduced concentration⁽¹⁾.

Dysthymia or persistent depressive disorder is an attenuated and chronic form of depression diagnosed when the mood swings remain for at least two years. Unspecified depressive disorder refers to depressive symptoms that cause clinically significant distress and affect the professional and social performance, but do not meet the criteria for other depressive disorders⁽²⁾.

Depression is classified as mild, moderate and severe depending on the duration, intensity and frequency of the symptoms⁽³⁾.

Depressive symptoms associated with mild depression involve a high risk of progression to depression or major depressive disorder, physical illnesses, increased use of health services, and increased use of medicines. The differentiation between sadness, depressive symptoms and depression is of great relevance for elderly people suffering from health problems because the severity of the initial depressive picture, allied with lack of treatment, contributes to an unfav-

orable prognosis⁽⁴⁾.

Primary Care professionals can offer effective treatments for depression, including psychotherapies and antidepressant medication. Psychotherapies and psychosocial therapies are therapeutic resources that can be used, but antidepressant medications that are effective in moderate to severe depression are not indicated for mild cases⁽¹⁾.

National studies have found differences in the prevalence of depressive symptoms in elderly people assisted at Primary Care Units. A prevalence of 29.1% was observed in the Northeast region of Brazil⁽⁵⁾ and of 30.6%⁽⁶⁾ and 18.0%⁽⁷⁾ in the Southern region.

Epidemiological studies conducted in the United States between 2005 and 2010 showed that most patients diagnosed with depression in primary care were treated with antidepressants, although most did not meet the diagnostic criteria of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). Although the prevalence of depression in the elderly is lower than in other age groups, the prescription of antidepressants was not lower in this group⁽⁸⁾. A study conducted in the northeast of Brazil revealed that the majority of elderly people with severe depression were not taking antidepressants, a fact that had an impact on their psychic suffering, on the risk of suicide and in their quality of life⁽⁵⁾.

The Mental Health Action Plan for 2013-2020 developed by the World Health Organization, emphasizes the importance of promoting mental well-being, preventing mental disorders, providing care, improving recovery, promoting human rights and reducing mortality, morbidity and disability among people with mental disorders⁽⁹⁾. Therefore, it is relevant to investigate the reality of the elderly assisted in the Primary Care network to analyze and propose effective measures to improve health.

Thus, the objective of the present study was to analyze the depressive symptoms and its associated factors, the use of antidepressants, and the presence of a diagnosis of depression in the elderly.

Methods

This is a cross-sectional study carried out in Basic Health Units linked with the Family Health Strategy in the city of Uberaba, MG, Brazil, between November 2016 and May 2017.

The population was composed of elderly individuals aged 60 years or older. Individuals who reached the minimum score in the evaluation of the Mini Mental State Examination were included in the study. Individuals who had a communication problem that could prevent the interview were excluded. Thus, the sample was composed of 248 elderly. The interviewees were selected for convenience and the team that collected the data was properly trained.

Two data collection instruments were used: a questionnaire with socio-demographic data (sex, age, education, income, religion, presence of partner, and occupation), health conditions (morbidities) and life habits (smoking, alcohol consumption, sexual life, and physical activity) of the elderly; and the Geriatric Depression Scale (GDS-15). The short version of the latter evaluates the symptoms of mood swing, helplessness, uselessness, disinterest, annoyance and happiness through dichotomous responses (Yes/No) and indicates the presence of depressive symptoms in the elderly whose sum of points reaches a score above five; mild depression in the case of those whose sum of points reaches a score between six and 10; and severe depression in the case of a score from 11 to 15⁽¹⁰⁾.

Data were entered into a *Microsoft Excel®* spreadsheet through double entry by independent typists, and transported to the *Statistical Package for Social Science* version 20.0. Descriptive analyses included the calculation of absolute simple frequencies and percentages for the qualitative variables, and measures of centrality (mean) and dispersion (standard deviation) for the continuous variables. The chi-square test and the Odds Ratio (OR) were used for measures of association with the indicatives of depression. The adjusted analysis of factors associated with depressive symptoms was performed by a binary

logistic regression, using dichotomous independent variables, which in the bivariate model had a maximum *p*-value of 0.2. The adjusted odds ratios (OR) and the 95% confidence intervals (CI) were calculated. *P*-values equal to or less than 0.010 were considered significant.

The study complied with the formal requirements contained in the national and international regulatory standards for research involving human beings.

Results

There was a predominance of females (68.5%) and low education level (51.2% with up to three years of schooling). The majority of the elderly had an income lower than three minimum wages (89.5%) and reported having a religion (94.8%), with 78.2% of them declaring to be Catholics and evangelicals. Approximately half of the participants had a partner (52.4%) and 62.9% were retired individuals (Table 1).

Table 1 - Sociodemographic characterization of the elderly in the presence of depressive symptoms as evaluated by the Geriatric Depression Scale (n=248)

Variables	Total*	Geriatric Depression Scale ≥ 6	Bivariate Analysis		
		n (%)	OR	95% CI	p
Sex					
Female	170	68 (16.7)	3.33	1,716.51	< 0.001
Male	78	13(40.0)			
Age (years)					
60 - 79	229	76(33.2)			0.539
≥ 80	19	5(26.3)			
Schooling (years)					
Up to three	127	51(40.2)	2.24	1,28 3.91	0.004
≥ 4	117	27(23.1)			
Income (minimum wages)					
Up to three	222	76(34.2)			0.036
≥ 4	14	1(7.1)			
Religion					
Catholic/Evangelical	194	69(35.6)			0.047
Others	41	8(19.5)			
Partner					
No	117	40(34.2)			0.566
Yes	130	40(30.8)			
Level of activity					
Less active	203	72(35.5)			0.026
More active	44	8(18.2)			

*The sums that did not reach the total of 248 refer to questions that were not answered by the elderly; OR=Odds Ratio

Active sexual life in 27.8% of the elderly contributed as a protective factor against depressive symptomatology, with 20.3% presenting depressive symptoms in this group and 38.2% in those without active sexual life. As for physical activity, 59.3% did not practice it and had greater indicatives of depression (42.2%) than those who practiced it (18.4%). Regarding alcohol consumption and smoking, we observed that 20.6% were users of alcohol and 17.3% were smokers. The mean number of morbidities was 2.56 (SD=1.84). Elderly people with up to three morbidities had an indicative of depression of 27.3%, while elderly people with four or more morbidities had 50.8%, as shown in Table 2.

Table 2 - Characterization of life habits and health conditions of the elderly in the presence of depressive symptoms as evaluated by the Geriatric Depression Scale (n=248)

Variables	Total*	Geriatric Depression Scale ≥ 6	Bivariate Analysis		
		n (%)	OR	95% CI	p
Smoking					
Smoker	43	19(44.2)	-	-	0.069
Non-smoker	204	61(29.9)			
Alcohol consumption					
Drink	50	10(35.5)	-	-	0.036
Do not drink	197	70(20.0)			
Sex life					
No	173	66(38.2)	2.42	1,254.70	0.008
Yes	69	14(20.3)			
Physical activity					
Do not practice	147	62(42.2)	3.24	1,775.95	< 0.001
Practice	98	18(18.4)			
Morbidities					
≥ 4	63	32(50.8)	2.75	1,515.02	0.001
Up to three	165	45(27.3)			

*The sums that did not reach the total of 248 refer to questions that were not answered by the elderly

Depressive symptoms were present in 32.7% (81) of the elderly; among these, 25.4% (63) had indicatives of mild depression and 7.3% (18) of severe de-

pression. A total of 22.2% of the elderly (55) reported a previous diagnosis of depression, and 17.0% (42) used antidepressants. Among the 167 elderly people with no indicatives of depression, 12.0% (20) reported taking antidepressants; among the 63 elderly people with indicatives of mild depression, 22.2% (14) were taking antidepressants; and among the 18 with indicatives of severe depression, 44.4% (8) used antidepressants.

The bivariate analysis of the main characteristics of the sample with the frequency of distribution of depressive symptoms according to the Geriatric Depression Scale is described in Tables 1 and 2. There was an association of depressive symptoms with the female gender (p<0.001), low schooling (p=0.004), non-practice of physical activity (p<0.001), higher number of morbidities (p=0.001) and lack of active sexual life (p=0.008).

After adjustment of the analysis, two factors showed an association with the presence of depressive symptoms: absence of physical activity (OR: 3.59; 95% CI: 1.75 - 7.39; p=0.001) and greater number of morbidities (OR: 2.55, 95% CI: 1.25-5.22, p=0.010).

Discussion

The study presents as a limitation the selection of a convenience sample. The research team attempted to reduce this risk by confirming with community health agents whether the elderly were enrolled in family health teams. In addition, the proportion was calculated by means of the number of elderly enrolled in each unit in order to promote the external validity of the project. The obtained results contemplated the elderly that sought care in Basic Health Units, undergoing the screening for depressive symptoms, which does not replace medical diagnosis. The evaluation of the use of antidepressants occurred through self-report, thus with respective limitations.

This study describes the reality lived by elderly users of Basic Health Units by providing evidence of the presence of depressive symptoms, often ignored,

as well as possible deficiencies in the prescription of antidepressants. These findings may contribute to foster the planning or realization of studies on specific actions.

Although depression is considered a public health problem, there are few population studies about the prevalence of this problem in Brazil⁽¹¹⁾. It has been estimated that 7.6% of the Brazilian population and 28.0% of the elderly are diagnosed with depression by physicians or mental health professionals⁽¹²⁾.

A nationwide study showed a prevalence of 28.3% for depressive symptoms in the population and 34.9% in the elderly, of which 15.9% had mild to moderate depression and 19.1% had severe depression⁽¹³⁾. It is possible that the difference between the results is due in part to a poor diagnosis of depression in Brazil and the use of instruments for the screening of depressive symptoms that cannot replace the evaluation by professionals specialized in mental health.

The prevalence of depressive symptoms in Primary Care reported in national studies has shown a large variation. The result of the present study (32.7%) is close to that found in the south of the country, 30.6%⁽⁶⁾. However, higher prevalence rates have been observed in other studies in places such as the rural area of Uberaba, Minas Gerais (43.9%)⁽¹⁴⁾, as well as lower prevalence rates such as those reported for Coari and Tefé, Amazonas (18.3%)⁽¹¹⁾ and Bagé, Rio Grande do Sul (15.1%)⁽⁷⁾.

Elderly women presented a 3.33-fold higher prevalence of depression than the elderly men ($p < 0.001$). Most of the studies present a higher prevalence of depressive symptoms in women than in men^(1,6,11).

Elderly people with up to three years of schooling (40.2%) presented a 2.24-fold higher chance of developing depressive symptoms ($p = 0.004$). Studies have established a correlation between lower schooling and the presence of indicators of depression^(6,11).

Elderly people who reported having an active sexual life (28.0%) presented a lower incidence of depressive symptoms (20.3%) than inactive ones

(38.2%) ($p=0.008$), the latter a 2.42-fold higher chance to present depressive symptomatology. An epidemiological study with 1,656 elderly people reported depressive symptoms in 15.1% of those who were sexually active and in 30.0% of the inactive elderly⁽¹⁵⁾.

Other studies have demonstrated the positive effect of regular physical activity as a contributing factor in the prevention and treatment of stress and depressive pathologies⁽¹⁾, as well as the association of less physical exercise with depression⁽¹⁶⁾.

The presence of depressive symptoms was 2.75-fold higher for elderly people who had four or more pathologies, corroborating studies that show the association of depression with the presence of a greater number of comorbidities^(11,14,17). Depression accounts for 4.3% of the global burden of diseases and is among the largest causes of disability worldwide, especially for women⁽¹⁾. A similar result was found in a population study with 1,720 adults in southern Brazil in which the prevalence of depression was 1.44-fold higher among participants who reported one chronic disease and 2.25-fold higher among those with two or more chronic diseases⁽¹⁷⁾.

The self-reported diagnosis of depression in the elderly in this study (22.2%) was lower than that reported in the National Health Survey 2013 (28.9%)⁽¹²⁾. American research conducted between 1992 and 2005 revealed that most people diagnosed with depression in the Primary Care network did not meet the diagnostic criteria for major depressive disorder as defined in the *Diagnostic and Statistical Manual of Mental Disorders*. Many of those diagnosed with depression in the Primary Care may have dysthymia or emotional stress, which is characterized by stress associated with hopelessness and despair⁽⁸⁾. Additionally, several manifestations can be confused with depressive symptoms in the elderly, such as sleep problems, fatigue and low energy levels associated with other medical conditions, as well as the loss of the spouse and decreased social networks, which result in reduced social engagement.

Although this study investigated a local reality with a sample that represents only one city, data on the use of antidepressant medication by elderly people who did not present depressive symptoms (12.0%), with indicatives of mild depression (22.2%) and indicatives of severe depression (44.4%) call attention to a possible inadequacy of antidepressant prescriptions, either due to the difficulties of diagnosis in the Primary Care or by a medicalization induced by the intense marketing of the pharmaceutical industry⁽⁸⁾. The difficulty to diagnose depression showed by general practitioners of the Primary Care network has been alerted by the World Health Organization⁽¹⁾.

Among the elderly patients with indicatives of severe depression, 55.6% stated that they did not use antidepressants, thus evidencing a possible underdiagnosis or low adherence to treatment. This finding is confirmed by a National Health Survey⁽¹⁸⁾ that revealed that 52.0% of people diagnosed with depression were using antidepressants and only 46.4% were receiving medical care for this condition in the last 12 months, and around 54.0% of the population had sought public health care.

Considering that the aging of the population constitutes a challenge for the management of public policies in Brazil and that quality of life is a right of the elderly, as recommended by the Statute of the Elderly⁽¹⁹⁾ and the National Policy for the Elderly⁽²⁰⁾, it is important to study the depressive symptoms among this population, for their direct impact on the above-mentioned public policies.

The findings of this study represent a contribution in the sense of providing evidence of the important need for the development of programs and strategies able to promote protective activities against depressive symptoms, as well as to enable primary care professionals to diagnose and manage depression, favoring the appropriate treatment of the problem in this population.

Conclusion

Depressive symptoms were associated with physical inactivity and comorbidities. Less than half of the elderly with indicatives of severe depression used antidepressants. The diagnosis of depression was more frequent than the indicatives of severe depression.

Collaborations

Hajjar R contributed to the drafting and design of the project, analyses and interpretation of the data and writing the article. Nardelli GG contributed from the drafting and design of the project, analysis and interpretation of the data. Gaudenci EM contributed to the relevant critical review of the intellectual content. Santos AS contributed to the drafting and design of the project, and the final approval of the version to be published.

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