

Depression and chronic diseases in the elderly

Depressão e doenças crônicas em idosos

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ABSTRACT

The process of demographic transition in Brazil are underlying challenges related to the increasing prevalence of chronic diseases and the functional disability in the elderly population, and that require new answers and strategies from administrators and health services professionals. Also in this context, we highlight the chronic diseases that can affect the mental health of the elderly, among which is depression. Besides a higher prevalence, when associated with chronic diseases, depression increases morbidity and mortality, causing worsening of quality of life and burdening the health system, in addition to representing a risk factor for the development of several diseases. A review of Brazilian literature with emphasis on epidemiological aspects, diagnosis and association of depression with chronic diseases in the elderly population was conducted.

Keywords: Aged; Chronic disease; Depression; Brazil

RESUMO

Ao processo de transição demográfica que se vive no Brasil estão subjacentes desafios relacionados ao aumento da prevalência de doenças crônicas e a incapacidades funcionais na população idosa, e que demandam novas respostas e estratégias por parte dos administradores e profissionais dos serviços de saúde. Também nesse contexto, destacam-se as doenças crônicas que podem afetar a saúde mental dos idosos, entre as quais está a depressão. Além de maior prevalência, quando associada a doenças crônicas, a depressão aumenta a morbidade e a mortalidade, causando piora da qualidade de vida e onerando o sistema de saúde, além de representar fator de risco para o desenvolvimento de diversas doenças. Realizou-se revisão de literatura brasileira com ênfase nos aspectos epidemiológicos,

diagnóstico e associação de depressão com doenças crônicas na população idosa.

Descritores: Idoso; Doença crônica; Depressão

INTRODUCTION

Depression is a disease, and it is not a feature of aging or of old age. However, it is under diagnosed in the elderly population, also on the basis that the presence of comorbidities and the use of multiple medications, which are common in this population, make the diagnosis and treatment of depression more complex⁽¹⁾. On the other hand, high prevalence of depressive symptoms has already been registered in the elderly population somewhere between 34% and 38%^(2,7).

In a cross-sectional study in 2009, by Cunha et al.⁽³⁾, with 1,184 adults from low-income community of Porto Alegre (RS), aged 20 or above, found prevalence of 16.3% elderly (aged 60 or above) with depressive symptoms, evaluated using the Edinburgh Postnatal Depression Scale. It was observed the trend of a higher incidence of depressive symptoms with the increase in age and with lower levels of education and income.

Bandeira's study⁽⁴⁾ with 85 elderly of the metropolitan area of Fortaleza (CE), through the use of the Geriatric Depression Scale (GDS-15), the prevalence of depressive symptoms equal to 37.6% was identified. This was higher in a younger elderly group (39.38% in elderly people aged between 60 and 69; 37.5% in elderly people aged between 70 and 79 and 3.12% in those aged 80 and above), and 2.65 times higher prevalence in women.

Cross-sectional study carried out between 2007 and 2008 by Alvarenga et al.⁽⁵⁾ with 503 elderly of both sexes and aged 60 or above, cared for by the Family Health Strategy in the city of Dourados (MS), recorded prevalence of depressive symptoms equal to 34.4% in men and 36.0% in women. The presence of these symptoms was greater among the elderly with higher number of chronic diseases. It was not detected a statistically significant difference between genders and age groups. It was applied to GDS-15; values equal or above six were considered indicative of depression. Among the elderly with depressive symptoms, apathy and isolation were the items of the scale with greater predominance.

In another cross-sectional study carried out subsequently (2010 and 2012), by Ferreira and Tavares⁽⁶⁾, with a population of 850 elderly residents in the rural area of a municipality of the State of Minas Gerais, it was identified the prevalence of 22% of elderly aged between 60 and 70 with depressive symptoms.

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Females with a greater number of comorbidities and functional disabilities to perform daily activities were associated with depressive symptoms.

Batistoni et al.⁽⁷⁾ conducted a longitudinal study that evaluated data from 310 elderly aged between 60 and 103, in Juiz de Fora (MG). In this study, the data relating to the first set of measures (N=440) were collected in 2002 and 2003, and the second in 2004. Among those who participated in the two measures, 33.87% had depressive symptoms. The Center for Epidemiological Studies Depression Scale (CES-D) was applied in order to evaluate depressive symptoms, comparing the score of depressive symptoms in the two study measures classified in four groups: a) those free from depressive symptoms and those remaining with this condition (50.9%) b) those incidents, which moved on to scoring for depressive symptoms (15.2%); c) those showing remission or improvement (14.2%); and (d) those showing recurrence (19.7%). In terms of prevalence of depressive symptoms, the researchers found no difference between the two measures of study. Remaining free of depression or showing remission symptoms was more frequent in men, while women presented a worse evolution in terms of new cases and recurrence.

Pinho et al.⁽⁸⁾ conducted a review of a literature about the incidence of depression in the elderly and the risk factors associated with it. Eleven prospective longitudinal studies were included which were carried out with people in the community aged over 50, conducted in the following countries: USA, England, Netherlands and Germany. The study concluded that prevalence rates differ depending on the definition, diagnostic criteria and of the population of interest. It was also found that the presence of depressive symptoms investigated in seven studies showed incidence of 12.0%, using the GDS-15. It was verified that the average incidence was of 13.23% in the elderly population of the community, ranging from 5.4% to 24.15%. According to the authors, this variation could be attributed to the use of different measurement scales, depression definitions, and methods of application of the scales, population of interest, follow-up time and cultural contexts. Among the predictors of depression, females were highlighted (only one study showed being female as a protective factor), old age (two studies found no association with age and one demonstrated that elderly aged 78 years or less presented a higher risk of developing depression), marital condition, low education level, unfavorable socio economic condition, housing conditions, low social support, stressful events, prior depression, psychiatric comorbidities, personality characteristics, sleep disorders, cognitive deficits, adverse health conditions, presence of chronic diseases, functional limitation and pain.

Nicolosi et al.⁽⁹⁾ point out that the data from the research network study about fragility in the elderly (FIBRA), conducted in the District of Ermelino Matarazzo, São Paulo (SP), showed that among the 303 elderly considered, 24.87% of women and 13.21% of men had symptoms of depression. Comparing the variables between genres, it was found statistically significant differences for three or more diseases self-reported, three or more health problems (more frequent in women) and depressive

symptoms. When compared to the scores of the Geriatric Depression Scale (GDS) with self-reported diseases, there was significant association between depressive symptoms and arthritis and diabetes. Among self-reported health problems, complaints of urinary incontinence, fecal incontinence, anorexia, falls, being bedridden, memory difficulty and fear of falling showed significant association with depressive symptoms. The findings of this study were consistent with previous publication that showed association between depressive symptoms and arthritis, diabetes, incontinence, reporting of falls and loss of appetite.

A longitudinal study developed in Australia by Prina et al.⁽¹⁰⁾, involving 5,411 elderly males aged 69 and over, upon application of the EDG, identified that the higher prevalence of depressive symptoms was found in the 75 to 79 age group (44.2%), followed by the 69 to 74 age group (25.1%) and 80 to 84 age group (23.0%) and, finally, the age group of 85 and over (7.7 percent). This study also pointed out association between depressive symptoms with higher risk of hospitalization, the greater number of new hospitalizations and increased use of hospital services.

DIAGNOSIS

In relation to the difficulties in diagnosing depression, in 2001, the Brazilian Medical Association (AMB) has developed guidelines in order to establish conducts in the diagnosis and treatment of medical conditions, including depression⁽¹¹⁾. In 2009, the AMB published a review of its guidelines for the treatment of depression, developed by Fleck et al.⁽¹²⁾. For this review, 23 articles published between 2002 and 2009 were found, five of which fulfilled the criteria of guidelines for diagnosis and treatment of unipolar depression in adults and, therefore, were considered in the review of the guidelines published in 2003. Among the highlights added in this edition are: the annual prevalence of depression in Western countries, in the general population it varies between 3% to 11%, and between 4.1% to 6.7% in the course of life; depression is two to three times more frequent in women than in men; about 80% of people will have a second depressive episode throughout their lives, and the average length of an episode varies between 16 and 20 weeks, and 12% do not have remission of symptoms; Depression is a disabling disorder when compared to other chronic conditions, equivalent to incapacitation due to severe ischemic heart disease, causing greater prejudice to health than angina, arthritis, asthma and diabetes; it is estimated that in 2020, depression will be the second most common cause of disability in developed countries and the first cause in developing countries; depression is misdiagnosed by a doctor not a psychiatrist; between 30% to 50% of cases go undiagnosed in primary care services and other general medical services.

In the same article, the authors propose two questions for identification of depression: “during the past month, did you feel bothered by feeling down, being down, depressed or hopeless?” “During the last month did you feel bothered by having little interest or pleasure in doing things?” In the case of two positive responses, the sensitivity to depression was of 96%

and specificity of 57%. In addition, we also propose the use of the Goldberg scale for depression detection, which is composed of the following questions:

1. Have you been having little energy?
2. Have you been having loss of interest?
3. Have you been having loss of confidence in yourself?
4. Have you been feeling hopeless? (If Yes to any, continue...)
5. Have you been having weight loss (due to little appetite?)
6. Have you been waking up early?
7. Have you been feeling slower?
8. Do you tend to feel worse in the morning?

If the answers are positive for three or more questions, the sensitivity is equal to 85% and the specificity is 90%.

Finally, in this article the AMB, based on the International Classification of Diseases-10 (ICD-10), presents key symptoms to diagnose depressive episodes, namely, depressed mood, loss of interest and fatigue. The additional symptoms are reduced attention and concentration, self-esteem and reduced self-confidence, ideas of guilt and worthlessness, bleak and pessimistic vision of the future, disturbed sleep and decrease in appetite. It is classified as a mild episode when the patient presents two basic symptoms plus two additional symptoms; as moderate, two episode of these fundamental symptoms more three or four additional symptoms; and as severe episode, three fundamental symptoms more four or more additional symptoms.

Del Porto⁽¹³⁾ explains that the term depression has been used to refer to: a) a normal emotional state (sadness); b) a symptom; c) a syndrome; or d) to one or various diseases. Sadness is a universal reaction to situations of loss and other adversities; may be an adaptive response, but also a warning sign. As symptoms, depression may be associated with clinical disease and may be response to stressful situations or adverse economic and social conditions. As a syndrome, depression includes changes of mood and cognitive changes, psychomotor and vegetative (sleep, appetite). As a disease, depression can be classified into major depressive disorder, melancholy, dysthymia, bipolar depression, among others. The feelings of sorrow and emptiness characterize depressive disorder. The author also reports that major depressive disorder is the most severe form of depression. By the DSM-IV criteria, this disorder is characterized when a person presents "depressed mood, loss of interest or pleasure, during a two-week period in addition to four more symptoms from a list of nine.

DEPRESSION AND CHRONIC DISEASES

About the association of depression with other morbid events, Buber & Engelhardt⁽¹⁴⁾ identified a study demonstrating that the greater impairment of health is an important risk factor for both the emergence and persistence of depression in the elderly. This study is called SHARE (Survey of Health Ageing and Retirement in Europe), it is a research on health, ageing and retirement developed in Europe. The first set of data was collected between 2004 and 2005 and the sample included 28,538 participants, aged between 50 and 89 (data on elderly aged between 90 and 104 were excluded due to the small

number of this population, 285). In this study, the average age of men was 64 and women 66 years old. Euro-D scale was used. The results showed that women had a higher prevalence of depression than men. When compared with the reference group of individuals aged between 50-54, the age groups of 70-74, 75-79, 80-84 and 85-89 showed higher levels of depressive symptoms and this increase was evidenced in both men women. When compared to socio-demographic variables, health conditions and economic tensions, the association between depressive symptoms and age disappears in men and reverts to women. This way, the study signals that the association between age and mental health is mediated by life and health conditions of the elderly.

One of the relevant issues in assisting the elderly with the diagnosis of depression refers to self-destruction, which can take to suicide. Minayo & Cavalcante⁽¹⁵⁾ identified 52 references corresponding to the period from 1980 to 2008, which showed strong associations between ideation, attempts, and suicide in elderly people. Elderly women think more about suicide but it is men who most commit suicide. American studies showed that there is a relationship of 4:1 between attempts and completion of suicides among elderly. Suicide in the elderly is a complex event with multiple causes and it is strongly associated with diseases and mental disorders. The presence of neoplastic diseases, neurodegenerative, urogenital and cardiopulmonary diseases in men is a risk factor for suicide in elderly. These authors found studies about postmortem information concerning the circumstances of suicide; 63% of those who committed suicide were suffering from depression on the occasion of their death, and 77% suffered from some psychiatric disorder, besides finding that elderly people from the age of 80 were the most prone to having thoughts, suicide attempts and suicides. The study concluded that suicide associated with depression in the elderly can be prevented.

On the other hand, Galizzi⁽¹⁶⁾ states that, often, depression is associated with clinical disease. Depression increases the complications and reduces the response to treatment of underlying clinical conditions, prolonging the evolution and causing economic and social losses. When affected by a disease, the immune and the metabolic-neuroendocrine systems suffer changes associated with increased morbidity and mortality. Depression, when associated with another clinical condition, can represent comorbidity, a response to the process of illness, or a direct consequence of the primary clinical picture. Depression, associated with other clinical conditions, worsens recovery, bringing in complications and the risk of death four to five times higher when compared to the population that does not have this diagnosis.

According to Telles et al.⁽¹⁷⁾, cardiovascular disease often coexist with psychiatric disorders, but can develop as a complication of psychiatric problems and vice versa. There are some European studies showing that depression is associated with coronary artery disease and presents itself as the largest risk factor for this disease; in addition, numerous studies show a prevalence of depression around 18.0% in patients after acute myocardial infarction.

Teng et al.⁽¹⁸⁾ argue that the association between depression and other chronic non contagious diseases can cause worse evolution of both, mental conditions and clinical disease, leading to less adherence to treatment, in addition to greater morbidity and mortality. According to these researchers, in the field of cardiovascular, neurological, kidney, endocrine disorders, oncology diseases and chronic pain syndromes are associated with depression. The adequate assessment of depressive symptoms in patients with associated morbid conditions becomes more difficult due to the superposition of symptoms such as fatigue, loss of appetite, pain, insomnia and low mood, the conditions that are associated to hospitalization and the perception of adverse consequences of these diseases, such as low self-esteem. When depressed cardiac patients were compared with non-depressed, mortality among those who presented depression was 3.1 times higher. On the other hand, the systemic arterial hypertension, which is a risk factor for heart diseases, seems to occur more in patients with depressive symptoms. Also, it has already been evidenced that the prevalence of depression in diabetic patients is between 11% and 31%, and the presence of diabetes increases twice the risk of depression. In patients with neoplastic disease, the association between lower survival and the presence of depression is clear. Patients with chronic pain have depression (30% to 54%); severe pain conditions are associated with a higher frequency of suicidal thoughts, suicide attempts and suicide. Depression after brain stroke occurs on about 19% to 23% of patients, the presence of depression increases the risk of brain stroke events in a period between 10 and 15 years.

It should be noted that the assessment of elderly people who have complaints of sadness and/or anhedonia can contribute to the improvement and identification of chronic illnesses⁽¹⁾, including depression.

In a cross-sectional study of population-based observation, held in 2009, developed by Hoffmann et al.⁽¹⁹⁾, in Montes Claros (MG), identified by means of the Geriatric Depression Scale, 20.96% of 258 elderly aged 60 to 98 years (average age of 71.1; DP=±8.08), had depressive symptoms. In bivariate analysis, these symptoms were significantly associated with the reference to not be eating well ($p=0.001$), using three or more drugs ($p=0.017$), have lost a relative or partner in the past few months ($p=0.017$), presenting difficulty sleeping ($p=0.002$), partial dependence to the basic activities of daily living ($p<0.001$) and dependency for instrumental activities of daily living ($p<0.001$). There was higher a prevalence of depressive symptoms among women.

Oliveira et al.⁽²⁰⁾ evaluated 240 elderly residents in João Pessoa (PB), whose average age stood at 71.8. The study was carried out in 2010, with the application of GDS-15, and identified that 24.2% of elderly had depressive symptoms (19.6% low level and 4.6% high/severe level, with 29.9 percent of women classified as low or severe degree), a higher number these symptoms were recorded among those who were aged 71-76 years old (7.5% of the total).

Duarte & Rego's study⁽²¹⁾ carried out between 2001 to 2004, with convenience samples of 1,120 elderly (age ranging from 60

to 99, average of 75.4), seen in a geriatric outpatient clinic of reference, in Salvador (BA). Using the standardized history of the institution, researchers showed the presence of depression in 23.4% of elderly people, of whom 47.6% were in the age group of 70-79 years old, no statistically significant difference by gender. The number of associated chronic diseases ranged from zero to eight, with the average of three; only 5.3% did not present any illnesses. Parkinson's disease was the most associated with depression, but it was also found association with postural instability, urinary incontinence, constipation, and with over three chronic diseases.

Pinho et al.⁽⁸⁾ identified that chronic diseases such as hypertension, heart disease, lung disease, arthritis, and diabetes were significantly associated with depression in five studies. In four of the eleven studies, it was observed that the emergence of depression was associated with frequency and intensity of pain symptom.

According to Fráguas Junior's⁽²²⁾ observation, depression in diabetic patients was the main factor for worsening of predictive evolution considering hospitalizations and mortality. Later, this same author⁽²³⁾ pointed out that the presence of depression could increase by 40%, and up to double the risk of onset of type 1 diabetes, due to changes in lifestyle.

Cafalli et al.⁽²⁴⁾ found studies that showed association of depression with rheumatoid arthritis, lupus, osteoarthritis, systemic Lupus erythematosus and fibromyalgia in the elderly, in addition to considering the low level of diagnosis of depression in the elderly population with rheumatological disorders, orthopedic or traumas represent a complicating factor, which leads to worse evolution of functional capacity and increased mortality.

Finally, it must be considered that the depressive syndrome may accompany almost every chronic diseases and their presence leads to worse developments, worse adherence to treatment, worse quality of life and increased morbidity and mortality⁽¹⁷⁾.

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