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STUDY REVEALED SIGNIFICANT PREVALENCE OF DEPRESSION IN THE ELDERLY OF THE COUNTRYSIDE

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ABSTRACT

In Brazil, a study conducted with elderly enrolled in the Family Health Unit showed that 52% had depressive symptoms, of which 48% had mild to moderate depression and 4% severe depression. From the perspective of the presence of depressive symptoms, this study aimed to determine the prevalence of elderly indicative of depression, living in the countryside. In methodology, in order to describe the prevalence of depression in the elderly in the countryside in the city of Nova Aliança, will be held a descriptive study in the months of January to July 2015, applied to the Beck Scale for the data is processed. In results, the results showed a higher prevalence of depression in women evaluated in the present study compared to men, as the women's group was the presence of four levels of depression, and in males only confirmed levels 1 and 2 there was no statistical significance in the first level of depression (minimum) between women and men studied, with $p = 0.997$. However, there was statistical significance at the second level of depression (light) between women and men in this study, with $p = 0.01$. In Conclusion, all study subjects had depression, even to a minimum in the countryside. It was also shown in this study that there is a higher prevalence of depression in women and that they had depression with greater age compared to men of the same study.

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INTRODUCTION

The life expectancy of Brazilians has increased in recent years and, according to estimates by the Brazilian Institute of Geography and Statistics (IBGE), Brazil has 20.6 million seniors, a figure that represents 10.8 % of the total population and that number is expected to increase. According to the survey, around the year 2050, there will be, in Brazil, 73 elderly for every 100 children and life expectancy will increase from 72.78 years to 81.29 years equating to countries like Iceland (81.80 years) and Japan (82,60 years) (IBGE, 2015). Population aging has been experienced by most societies and projections indicate that by 2050, there will be about two billion elderly in the world, and much of this population will live in developing countries. In Brazil, the expression elderly aged 60 or more (the Elderly).

Although still considered a young country, the Brazilian population is aging. Depression is considered a public health problem. It is estimated that in 2020, will be the second cause of disability in the elderly, second only to cardiovascular disease. Moreover, it is the second leading cause of mental illness in this age group and not only exceeds the number of dementia cases (Nascimento, 2007). Study of elderly enrolled in the Family Health Unit showed that 52 % had depressive symptoms, of which 48 % had mild to moderate depression and 4 % severe depression (Nascimento, 2007 and Fernandes *et al.*, 2010). Research conducted with elderly Chinese living in the countryside, got 5.9 % of respondents had depression. A higher prevalence among women, and 85.9 % lived with family members. The depression was related significantly with poor social support, family relationship problems and poor health (Chen, 2005). Another study conducted in Mexico showed that 19.7 % presented depressive symptoms and 5 % were confirmed by a specialist. A higher prevalence of depression in rural areas (23.6 %) compared to urban (14.7 %); especially among those in older age groups (Torija, 2007).

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Scientific research has given the story many beneficial results for the advancement of different disciplines. Data from this study will serve as a basis for the development of promotion interventions, prevention and proper care of geriatric patients with depression, seeking to minimize the high impact on health and quality of life of the population. Considering the respect for human dignity and the special protection due to the participants of the scientific research involving human subjects; considering the development and ethical engagement, which is inherent in scientific and technological development. As for research on depression in the elderly in Brazil, most studies have been performed in the urban area, with little research covering the topic of aging in rural areas (Ferreira and Tavares, 2013 and Rodrigues, 2014).

Thus, it is important to guide intervention strategies to elderly patients with depression in order to promote adequate psychosocial environment that is healthy for the elderly and helps to guide prevention programs on the studied problem as the rapid population growth elderly in the country has encouraged investments in the area of public health policies and research, and generate increasing demand for specialized training by professionals interested in working or who already work with this (Pinho *et al.*, 2008) population. Among the various disorders affecting the elderly, depression deserves special attention, since it presents high frequency and negative consequences for the quality of life of affected individuals (Grazallea, 2004). In order to increase knowledge about the health situation of older people living in the countryside, from the perspective of the presence of depressive symptoms, this study aimed to determine the prevalence of elderly indicative of depression, living in the countryside.

MATERIALS AND METHODS

In order to describe the prevalence of depression in the elderly in the countryside in the city of New Covenant, will be held a descriptive study in the months of January to July 2015, in elderly patients from rural Nova Aliança, opportunity which shall be explained participation in the study, which is completely voluntary. Once given the signed informed consent information for participation in the study will apply the Beck scale so that, later, the data is processed. Thus, in 1961, Aaron T. Beck (1961), developed the Beck Depression Inventory, in order to assess whether or not the individual has depression.

It is self-report instrument consisting of 21 items, each containing four alternatives, leaving the individual to choose the statement that describes your symptoms. These statements are composed of cognitive components, affective, behavioral and somatic depression. The score is obtained by summing the 21 items that make up the scale, in which scores lower than 11 points mean no or minimal depression; scores between 12 and 19 points, mild depression - moderate; scores between 20 and 35 points, moderate to severe depression; scores between 36 and 63 points, severe depression. The study population will consist of older people aged 60 or over both sexes, of all socioeconomic states with different political and religious beliefs, living together in the same rural area of the city of Nova Aliança. For the study, was totaled a population of 307 patients, residents in rural, which, after being evaluated by the inclusion and exclusion criteria, we obtained finally a

population for the study of 30 patients. Family registration forms of ESF Unit of the City of Nova Aliança. The following databases were used. A format as a method to collect Beck Depression Inventory information to assess state of mind of an elderly classifying it as someone without depression with mild to moderate depression, moderate to severe depression and severe depression was used. Inclusion criteria were patients living in rural Nova Aliança and patients aged greater than 60 years. Have the exclusion criteria were patients younger than 60 years and the patient who did not wish to participate.

Statistical Analysis

Based on the sample size of $n = 30$ study subjects, there was descriptive statistical analysis of the values of each age group of women and men, and the women's group of 4 subgroups (minimum, light, moderate and serious) and the group of men composed of two subgroups (minimum and light). In addition, there was a non-parametric test the Pearson correlation in each subgroup of women in each subgroup of men and among subgroups of women and men in order to obtain the critical level of significance between age, gender and level of depression. All statistical analysis was performed using Minitab 17 program.

RESULTS

After statistical processing of data, the results showed a higher prevalence of depression in women evaluated in the present study compared to men, according to figure 1 and 2, as in the female group was the presence of four levels of depression, and in the group men only confirmed levels 1 and 2. In addition, there was also a higher prevalence of grade 1 (minimum) of depression for both women ($n = 9$) as for men ($n = 8$) in the study, the sample universe of $n = 30$, ie about 57 % of subjects analyzed had levels of depression minimum, and average age of women $71 (\pm 9)$ years against an average of $67 (\pm 7)$ years for men in this study.

For Level 2 and 3 of depression (light and moderate) in women, the same proportion of cases was confirmed four cases for each level, with the same mean age of $72 (\pm 5)$ to level 2 and $72 (\pm 14)$ for level 3 of depression. In addition, two women had level 4 depression (serious) with a mean age of $77 (\pm 15)$. Already men were only 3 cases with level 3 of depression (light) with a mean age of $69 (\pm 6)$, as Figure 2. In addition, there was no significant statistical correlation between women analyzed with levels 1 and 2 of depression ($p = 0.965$), between levels 1 and 3 of depression ($p = 0.987$) and between levels 1 and 4 of depression ($p = 0.163$).

However, there was a statistically significant correlation between levels 2 and 3 of depression ($p < 0.001$) in women concerned. However, it was not at levels 2 and 4 depression ($p = 0.08$) and not in levels 3 and 4 of depression ($p = 0.102$). Added to this, there was no statistical significance in the first level of depression (minimum) between women and men studied, with $p = 0.997$. However, there was statistical significance at the second level of depression (light) between women and men in this study, with $p = 0.01$, as shown in Figure 3.

Figure 1. Graphic image showing the relation between the number of patients and the degree of depression that is stratified minimum, light, moderate and serious

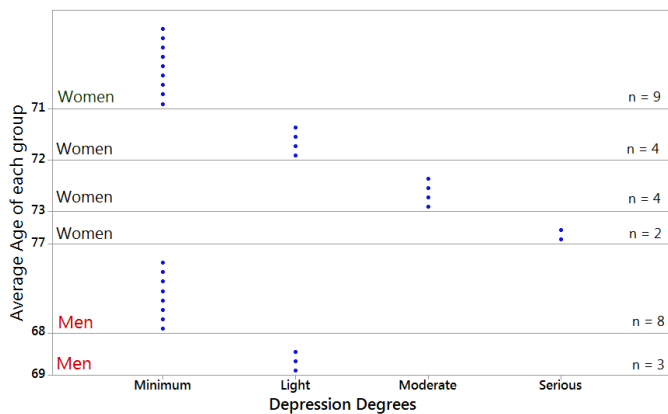


Figure 2. Graphic on DotPlot format showing the relationship between the average age of the patients and gender with depression levels

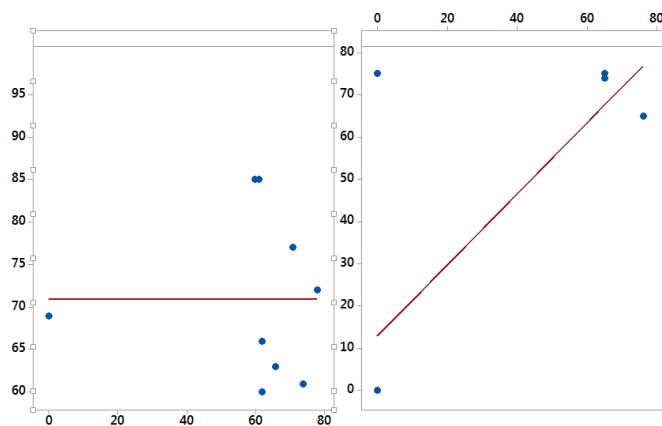


Figure 3. Scatterplot graph in format showing regression in (A) the correlation between the group of women who had minimum level of depression with the group of men who had the same level 1 (minimum) of depression. And (B) shows the relationship between the group of women and men with the same Level 2 (light) of depression

DISCUSSION

Based on the results above, all study subjects had depression, even to a minimum in the countryside. It was also shown in this study that there is a higher prevalence of depression in women and that they had depression with greater age compared to men of the same study. Thus, it is imperative to further research the countryside, multicenter randomized trials, to have greater expression of the reality of involvement of depression disease in these rural people in order to develop control measures and prophylactic depression (Alvarenga *et al.*, 2012 and Mello and Teixeira, 2011). Thus, aging is not a state, but rather a progressive and differential degradation process. It affects all living beings and natural death is the death of the organism. It is therefore impossible to date its beginning, because, according to the level at which it is located, its speed varies from individual to individual. Thus, we can say that individuals age in very different ways and, in

this respect, we can speak of biological age, social age and psychological age, which can be very different from chronological age (Gonçalves and andrade, 2010 and Buarque *et al.*, 2012). Is connected to the biological age organic aging. Each body undergoes changes that reduce its operation during life and self-regulation capacity also becomes less effective. Social age refers to the paper, the status and habits of the person in respect of other members of society. Psychological age relates to the behavioral skills that one can mobilize in response to environmental changes, including the intelligence memory and motivation (Cancela, 2008). Human aging is viewed and studied in interconnected aspects: physical, social and psychological. As the age, the person will lose its vitality, its forces are decreasing and the world seems to have no more space as before so that the elderly can live and feel alive. With retirement, mostly men, lose much of their social life, not find their space in the house and in many cases this is not well accepted by the family. Marital difficulties will piling up day after day and the loss of purchasing power takes the elderly to close up in their world. Widowhood is another loss factor for the elderly, because attached to it comes loneliness and can even result in loss of coexistence with other couples, as widowers are less (Mello and Teixeira, 2011).

Old age is just another stage of life that should be looked at in a special way, because during the aging process, the individual is subject to a number of changes, such as spouse's loss, financial difficulties, lack of family support and social, presence of comorbidities, among others. These changes can contribute to a psychological imbalance, especially depression (Alvarenga *et al.*, 2012; Ferreira and Tavares, 2013 and Mello and Teixeira, 2011). The illness incapacitates to make decisions, but their intellectual capacity remains intact, and even seemingly isolated, depressed keeps large and quick perception and everything is experienced with great intensity (Gonçalves and andrade, 2010). The depressed elderly verbalize differently their complaints. He is looking for a general practitioner, when often the physical symptoms are a way to express a psychic suffering as a result of depression. Sadness, loss of interest or pleasure, sleep disorders, anorexia and weight loss are some of the symptoms that depressed older adults (Buarque *et al.*, 2012 and Paulo and Yassuda, 2010).

There is a striking contrast between the image that the depressed person's self and objective facts. Despite the suffering experienced as a result of these self-deprecating ideas, patients are not easily deterred by objective evidence or logical statements of the senseless nature of these thoughts. In addition, patients often practice acts that appear to increase their suffering. Attitudes and behaviors as these are very intriguing, as they seem to contradict some of the most strongly established axioms of human nature. According to the "pleasure principle", patients should seek to maximize satisfaction and minimize pain. According to the concept of self-preservation, these individuals should try to prolong life, not end with it (Beck and Alford, 1961 and Porto, 2014). Beck depression can now be defined in terms of the following attributes specific Changes in mood: sadness, loneliness, apathy, negative self-associated with author recriminations, regressive and desires: desires to flee, hide or die, vegetative changes: anorexia, insomnia, loss of libido, changes in activity level: psychomotor retardation or agitation (Beck and Alford,

1961). Beck believed that depression is caused due to unrealistic negative views of the world. Depressed people have a negative cognition in three areas, which are regarded as the depressive triad. They develop negative views about themselves, the world and its future (Beck and Alford, 1961). The geriatric depression is multifactorial. Genetic factors, although present, contribute little. Currently, changes that occur in the metabolism of neurotransmitters, in addition to hormonal changes and the synchronization of the heart rate, are considered the main causes of depression. One must also consider the social factors and physical health. Changes in eyesight and hearing are factors that strongly contribute to depression because they lead the elderly to isolation (Mello and Teixeira, 2011). It is known that, particularly in the elderly, depressive states have peculiar clinical features. At this age, there is a decrease in the emotional response (affective erosion) resulting in a predominance of symptoms such as decreased sleep, loss of pleasure in usual activities, ruminations about the past and loss of energy (Teixeira, 2004). Depression in the elderly is often secondary to other diseases such as cancer, Parkinson's disease, dementia, diabetes or the use of drugs such as antihypertensives, corticosteroids, among others. Please join this losses: end of professional and reproductive life, reduced income, power, death of friends, family, spouse (Gonçalves and andrade, 2010).

Conclusion

It was concluded that all study subjects had depression, even to a minimum in the countryside. It was also shown in this study that there is a higher prevalence of depression in women and that they had depression with greater age compared to men of the same study.

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Disclosure of Potential Conflicts of Interest

The authors declare that they have no conflicts of interests.

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