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Situational diagnosis of mental and functional areas of community-dwelling adults

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Abstract: A situational analysis of issues related to mental and functional areas of elderly residents of permanent stay of the city of Chihuahua was performed. It participated in the study 51 subjects, 30 women and 21 men, a battery of three scales were applied to assess cognitive aspects, emotional aspects and indicators related to the ability to perform activities of daily living of the elderly participants. The results obtained and the conclusions derived there from highlight the need for a systematic assessment in the halls of permanent residence and the urge to start a physical activation program that emphasizes directly in recovery motor independence and indirectly increasing in activities of group living in such a way that allows seniors Community-Dwelling enhance your ability to perform activities of daily life and reduce the burden on their caregivers.

Keywords: Situation Assessment, Elderly, Intellectual Impairment, Functional Area

1. Introduction

Many people associate the aging process at a vital stage in which the individual progressively moves from the physical, social and mental health to absolute decrepitude [1]. Aging manifests as a progressive and steady decline of our features, which seem to have a rate of growth and decline of the species itself, therefore, genetically programmed, but nevertheless widely affected by the living conditions. This conditions a loss of functional reserve capacity and general adaptation to the environment [2]. In addition, the society and its prejudices and stereotypes conditions or push the elderly to a more rapid decline; Somehow, it is intended to transform it into a dependent being, an invalid, although this result, when it occurs, is the opposite of what that, in fact, wanted [2,3].

Older people are thus in a difficult situation, since the loss of body control involves the loss of other skills of interaction and real social power due to the decline of these powers, that is, with advancing age the physical abilities deteriorate and health problems increase [4,5].

Comprehensive geriatric assessment can be defined as the multidimensional diagnosis and detection deficits in clinical-medical, functional, mental, physical and social

sphere, in order to achieve a rational and integrated treatment and monitoring plan [6]. It is oriented towards functionality of the subject, and therefore does not focus exclusively on one area.

In the field of mental evaluation aspects to be covered are cognitive and emotional. The first covers the knowledge and identification of mental changes associated with aging, confusion states and dementia. In assessing the need emotional depression and anxiety assessed. In the functional area, aspects related to the ability to perform activities of daily living and rating scales are based on the independence of the elderly in the execution of each function [6] are measured.

Current statistics indicate that society is aging rapidly, and we must pay special attention to this portion of the population and all their requirements and needs. Reference [7] published in the report of the Second World Assembly on Ageing, which in the XX century witnessed a revolution in longevity. The average life expectancy at birth had increased by 20 years since 1950 and reach 66. As described in the same report, this demographic triumph and rapid population growth in the first half of XXI century means that the number of people over 60, who was about 600 million in 2000, becoming nearly 2,000 million in 2050.

Today nine out of 100 Mexicans are 60 years or older and agree with the growth rate presented between 2000 and 2010, this population is expected to double in 18.4 years [8], for what Mexico has only a few decades to prepare the institutional responses that allow to address these demographic trends. In more specific data for our state of Chihuahua, Mexico 's National Institute of Statistics, Geography and Informatics [9] indicates that 12.5 % of the general population are elderly and it is estimated that by 2025 that figure increases to approximately one quarter of the total population . This information begs the expectation of the needs for health services, social services and human development that will demand attention to this sector of the population is increasing.

Currently in our state has the option for the care of older permanent residence stays commonly called nursing homes, institutions receiving the elderly for care. Most of these institutions do not have a systematic geriatric assessment of hospitalized adults to identify and quantify the physical, functional, psychological and social problems that can present the old, in order to develop a treatment plan and follow-up of these problems and optimal use of resources.

For the above and since one of the primary objectives in the care of the elderly is , prevent disability and promote independence, it is clear the need for permanent Community-Dwelling Adults, are provided with systematic geriatric assessment programs , with order to achieve a rational and integrated treatment and monitoring plan; always oriented functionality of the elderly. As this study's main objective is to answer the question what is the current situation of the elderly residents of permanent stay of the city of Chihuahua in their overall functional capacity?.

This study therefore contributes to provide evidence and data favoring the intervention stays in Community-Dwelling or permanent residence, to improve the quality of life of older adults. Accordingly, this research aims, as applied research; provide information that will lead to reliable results reality of older asylum.

2. Methodology

2.1. Subjects

Participants in the study included 51 older adults, 30 women and 21 men, residents of 4 Community-Dwelling houses of the city of Chihuahua who had a medical condition that allowed them to be valued and accepted to participate in the study. The age of the subjects ranged between 60 and 98 years, with a mean of 81 and a standard deviation of 8.5 years.

2.2. Instruments

Pfeiffer Scale Cognitive Assessment (SPMSQ). It is a short questionnaire to detect cognitive impairment in elderly patients. It consists of 10 items and is very useful, simple and fast. With questions like: What's the date today? (Day, month and year) How old are you? What date was born? Etc. Errors 0-3 are normal, 4-5 intellectual impairment, 6-8 moderate

intellectual impairment, 9-10 severe intellectual impairment. The SPMSQ is one of the most recommended questionnaires used for the detection of cognitive impairment in elderly; assessing short term memory and long-term orientation, information about daily events and ability to perform a serial mathematical work. Among its main advantages is its applicability to people with low levels of schooling.

Guillermo Calderon's Depressive Syndrome Scale. Consisting of 20 questions answer YES/NO, where YES answer has 3 options to choose from: little, some or a lot. For each question, gives the following score: NO 1 point, Little 2 points, 3 points Regular, a lot 4 points. Ranges: 20 to 35 points, normal, 36 to 45 points, mild anxiety, 46 to 65 points, depressive symptoms and medium intensity, of 66 to 80 points severe depressive state. This questionnaire has proven very useful in obtaining information about the prevalence of depression, be easy to understand, quick implementation and objectively correspond to the sociocultural reality of people.

Katz Index (IK). Rating Scale of Functional Ability. It consists of 6 items: washing, dressing, toilet use, mobilization, continence and feeding. They are hierarchically ordered according to how patients lose functions. Patients are classified 3 groups: Mild dependence 0-1, moderate dependence 2-3, severe dependence 4-6. It is noteworthy that since its publication in 1969, this scale basic pattern remains the most frequently used, in its original version or adaptations.

2.3. Procedure

Once established collaboration agreements with participating homes and signed consents by older adults with a medical condition that would allow him to participate in the study. We proceeded with the implementation of the three instruments battery that make the proposal for situation assessment of mental and functional areas, in approximately two consecutive work sessions, by elderly, for about an hour each session. Finally we proceeded to the analysis of the data obtained.

3. Results

3.1. Mental Area

Frequency Analysis by gender and age, the application of the Pfeiffer scale:

No significant differences by gender, between the categories of employed cognitive impairment (Figure 1). With respect to age, $X^2 (3, N = 51) = 14.972, p < .01$, shows a greater impairment among older elderly. Overall 49 % of the elderly show moderate impairment and 12% severe impairment (Figure 2).

Frequency Analysis by gender and age, the application of the Calderon Narvaez syndrome Depression scale:

No significant differences according to gender and age, among the categories of depression used (Figures 3 and 4). Overall 20% of the elderly show a depression of medium intensity and only 2% severe depressive state.

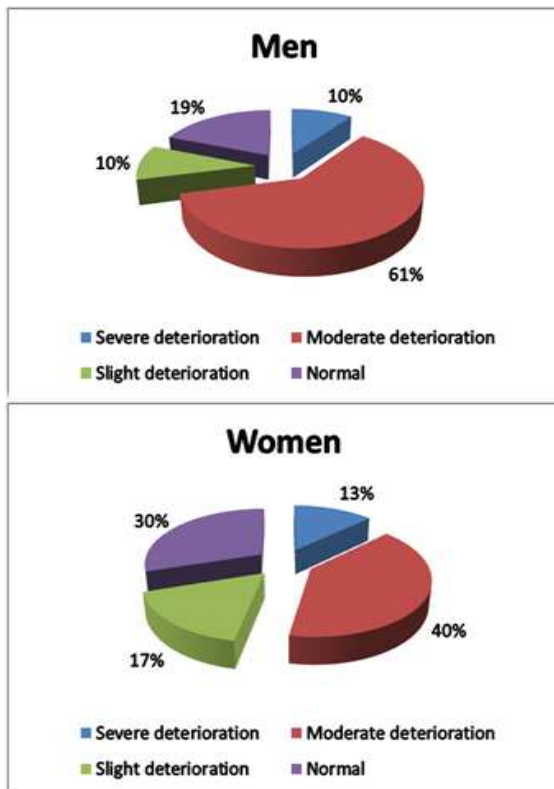


Figure 1. Cognitive impairment according to gender

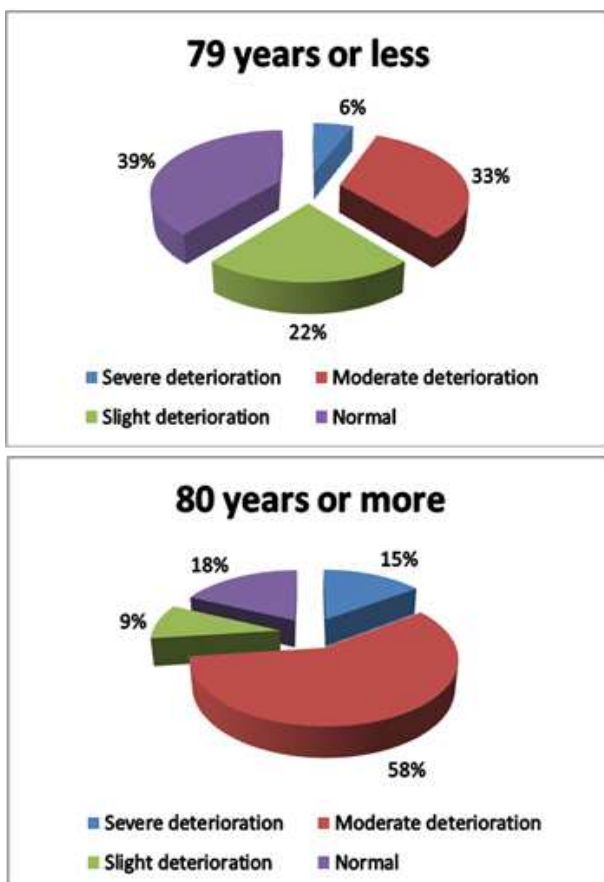


Figure 2. Cognitive impairment according to age

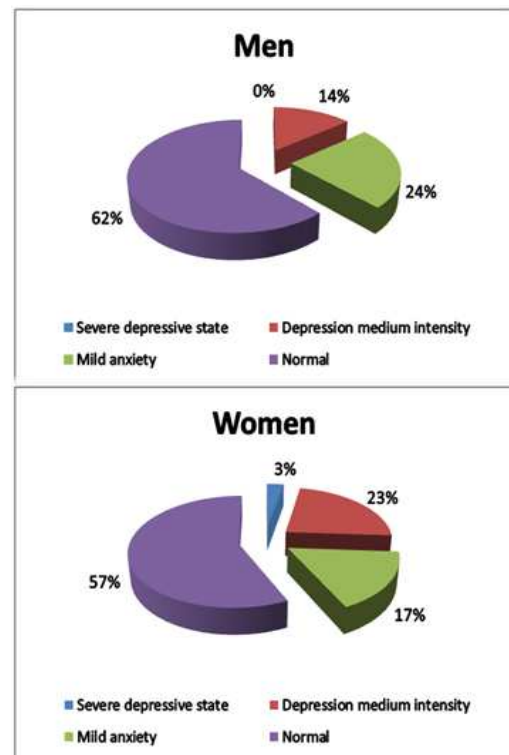


Figure 3. Syndrome of depression according to gender

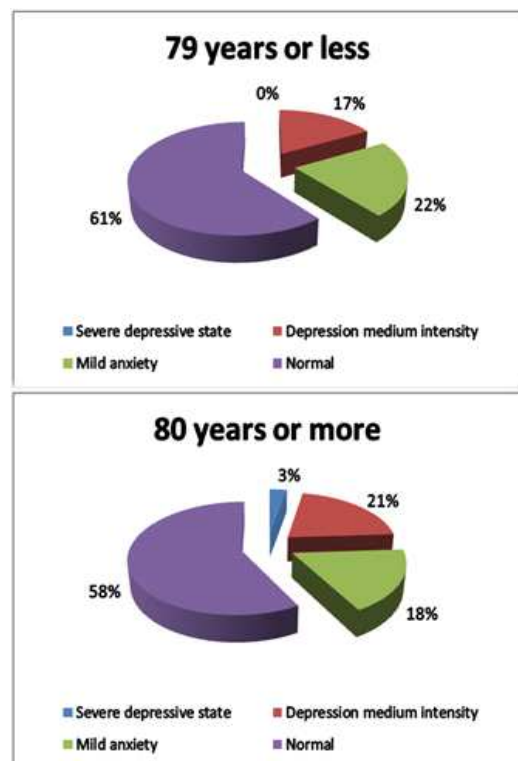


Figure 4. Syndrome of depression according to age

The multiple analysis of variance taking gender as an independent variable (first) and age (second) and as dependent variables the scores on the Pfeiffer scales of and Calderon Narvaez Syndrome Depression showed significant differences only in Pfeiffer accordance to the age, $F(1,49) = 5.456$, $p < .05$

(Figure 5 and 6).

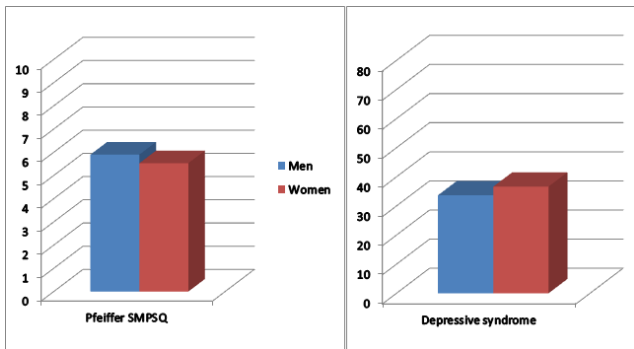


Figure 5. Average ratings in Pfeiffer and depressive syndrome according to gender

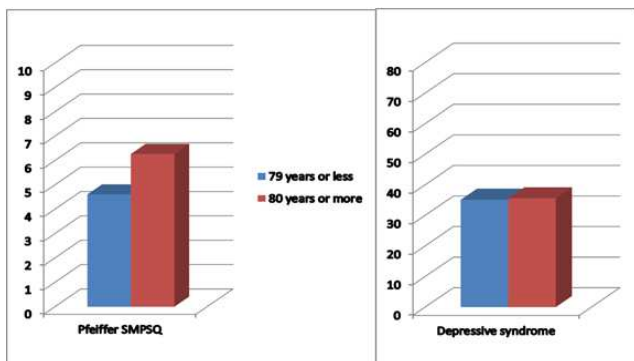


Figure 6. Average ratings in Pfeiffer and depressive syndrome according to age

3.2. Functional Area

Frequency Analysis by gender and age, the application of Katz index :

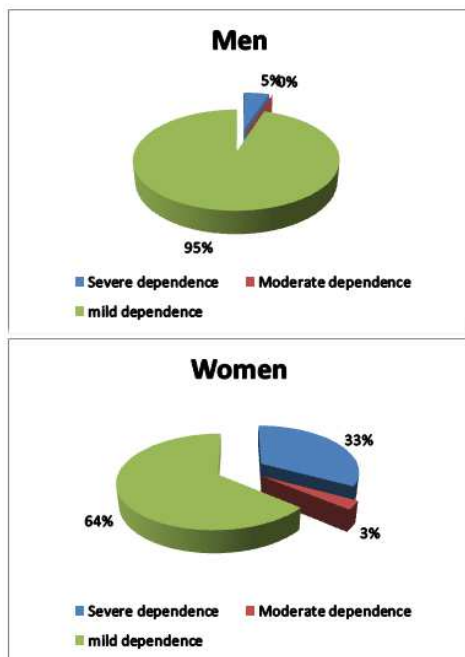


Figure 7. Functional dependency level according to gender

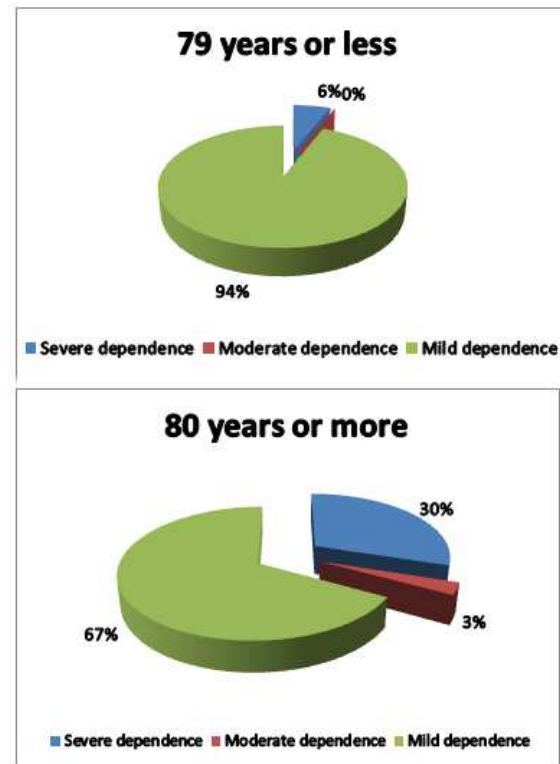


Figure 8. Functional dependency level according to age

Regarding gender, there is a marked difference, $X^2 (2, N = 51) = 7.02$, $p < .05$ among women (33%) and men (5%) with severe dependence (Figure 7). Something similar happens with respect to age between 79 elderly or less when compared with 80 or more, $X^2 (2, N = 51) = 6.98$, $p < .05$ (Figure 8). Overall, 22% of the elderly present a severe dependence

4. Discussion and Conclusions

As expected, according to the natural effects of aging, there is a greater cognitive decline in older adults at an older age, and in general, more than half have a moderate or severe impairment. These results agree with those reported by [10] in elderly Cubans.

Although only one-fifth of the elderly show symptoms of depression, more than two-thirds of them say they feel alone and do not see family or talking on the phone with them as often as they wish, coupled with the fact that most of the half of them have not visited recently. All this is exacerbated in older adults and males. Prevalence data similar to those found by [11] in Chilean elderly depression.

As regards the independence of older adults to perform activities of daily living, more than a fifth of them have severe dependence, accentuating this type of dependence in women and older; coinciding with reported by [12].

Recognizing that there are limitations in the diagnosis made in quantity and quality of assessment indexes used are scales and screening, the results obtained and the conclusions that follow from this point to the need for a systematic assessment in stays permanent residence and the urge to start a program that emphasizes physical activation directly in the recovery of

motor independence and indirectly in the increased activity of group living in a way that allows adults older inmates improve their ability to perform activities of daily living and reduce the burden on their caregivers.

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