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ORIGINAL ARTICLE

Subjective health assessment and functional characterization of elderly people living in a city in the interior of Amazonas state

Avaliação subjetiva da saúde e caracterização da funcionalidade de idosos domiciliados numa cidade do interior do Amazonas

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Abstract

Objective: The subjective assessment of health and functionality of the elderly domiciled in the interior of Amazonas in the city of Coari was performed. **Methods:** This is a cross-sectional observational and descriptive study with 81 elderly assessed at home in the first half of 2019. The Who Disability Assessment Schedule (WHODAS 2.0) was applied to assess functionality and the Subjective Health Assessment Questionnaire for self-report of health. **Results:** Of the 81 elderly, the majority are women n = 62 (76.5%) from 70 to 79, who have not completed 1 year of schooling n = 55 (67.9%) and have wage income equal to or less than 1 minimum wage n = 72 (88.8%) minimum. It was found no or mild difficulty for the domains evaluated in the WHODAS 2.0 and the self-reported health was regular or poor n = 66 (81.5%) for most of the elderly. **Conclusion:** The elderly

from Coari assessed at home are mostly independent and functional and report a poor self-perception of health compared to others of the same age.

Keywords: elderly, health level, psychosocial effects of illness, functionality; home care.

Resumo

Objetivo: Realizou-se a avaliação subjetiva da saúde e da funcionalidade dos idosos domiciliados na cidade de Coari no interior do Amazonas. **Métodos:** Trata-se de um estudo transversal e descritivo com 81 idosos avaliados em domicílio no primeiro semestre de 2019. Aplicou-se o *Who Disability Assessment Schedule* (WHODAS 2.0) para avaliar funcionalidade e o questionário de avaliação subjetiva da saúde para o autorrelato da saúde. **Resultados:** Dos 81 idosos, a maioria são mulheres $n = 62$ (76,5%) com faixa etária de 70 a 79, que não chegaram a completar 1 ano de escolaridade $n = 55$ (67,9%) e possuem renda salarial igual ou inferior a 1 salário mínimo $n = 72$ (88,8%). Encontrou-se nenhuma ou leve dificuldade para os domínios avaliados no WHODAS 2.0 e a saúde autorrelatada foi de regular ou ruim $n = 66$ (81,5%) para a maioria dos idosos. **Conclusão:** Os idosos de Coari avaliados em domicílio são em sua grande maioria independentes e funcionais embora relatem autopercepção da saúde ruim comparada com outros da mesma idade.

Palavras-chave: idoso; nível de saúde; efeitos psicossociais da doença; funcionalidade; assistência domiciliar.

Introduction

Aging is a natural and irreversible phenomenon; it does not occur equally and simultaneously in humans. Aging is part of life, and with the knowledge obtained so far, there are no ways to change this process [1].

According to the WHO, between 2015 and 2050, the proportion of the world's elderly population over 60 will almost double from 12% to 22% [2]. By 2050, the world's population aged 60 and over is expected to total 2 billion, almost double today's elderly population [3].

The estimate of older people in Brazil is about 28 million, a number that represents 13% of the country's population, which tends to double in the following decades: a quarter of the population will be over 60 years old by 2043, while the population of young people up to 14 years old will be only 16.3% [4].

Self-rated health has been a widely used variable in significant population-based health and well-being investigations, showing that it is an excellent multidimensional indicator of health and a good predictor of adverse events for the elderly population [5].

Self-assessing health depends on how a person understands good health, not only considering the physical problems that correlate with the aging process but also involving autonomy, feelings of control, and day-to-day functionality [6].

Recent studies point out that this assessment, in old age, is linked both to well-being [7,8] and to morbidity, mortality, and functional decline indicators [9]. The elderly tend to evaluate their health status positively, and to explain this, subjective comparison mechanisms are used social [10]. Possibly, they adopt as a basis of comparison people in worse health and functioning conditions than their own, leading to a sense of superiority [11]

Aging with quality of life depends on several factors, such as health, family support, sufficient income, opportunities for social and political participation, and good functionality [12]. Functional capacity and performance reflect the health-related attributes that enable people to be and do what they value or judge to be relevant [13].

Thus, functionality stands out as one of the main components of healthy aging, pointed out by the elderly as one of the essential aspects of life, as it is associated with independence and autonomy. This does not mean, however, having good performance and good competence in all domains during the entire course of life [12].

The functionality was characterized along with the subjective evaluation of the health of the elderly population in the city of Coari.

Methods

This is a cross-sectional and descriptive study that presents the functional characteristics and the subjective evaluation of the health of older people domiciled in the city of Coari in the interior of the Amazonas. This research was approved by the Research Ethics Committee of the Federal University of Amazonas (UFAM) under the registration number CAEE: 08021219.1.0000.5020; data collection was carried out in the first and second semesters of 2019.

The students visited the homes of older people in the city of Coari, in the state of Amazonas, until the repetition of the researched data was noticed.

The elderly, their relatives, and caregivers were informed about the study, and when they consented to participate, they signed the Informed Consent Form (ICF).

In this study, the family member and caregiver could answer and help the elderly. The inclusion criteria were elderly individuals aged 60 years or older, with cognitive ability and autonomy to actively participate in the evaluation battery. Although the Mini-Mental State Examination cognitively assessed this group, we included all the elderly regardless

of the cut-off score for this test since the group was interested in working with older people with moderate to severe cognitive deficits.

Older people with complete aphasia and physical and cognitive inability to answer the battery of tests were excluded.

For the characterization of the elderly, a semi-structured questionnaire was applied, containing the following information: age group, gender, level of education, housing situation, medicines taken, place of birth, self-reported diseases, and monthly income.

To analyze functionality, the Disability Assessment Schedule (WHODAS 2.0) was applied, an instrument that measures the level of health and disability of the population and assists clinical practice. This instrument evaluates the disability in six domains of life: cognition, movement, self-care, interaction with others, activities of life, and participation. For each item of WHODAS 2.0, the amount of difficulty a subject has in the last month to perform their activities is evaluated [14]. To evaluate the subjective perception of health, a short questionnaire was used to determine how each person considers their health based on the questions. In general, how do you rate your health at the present moment? How do you rate your health compared to other people your age? How do you rate your memory compared to other people your age? How do you rate your health today compared to a year ago? How do you rate your activity today compared to a year ago? Based on the answer, the older person will choose one of five options, ranging from much worse to much better [15].

From the collected data, a spreadsheet database was built and analyzed using the SPSS (Statistical Package for the Social Science) program, version 22.0, and Microsoft Excel 2007® application.

Results

Most of the elderly in this study are female and aged between 70 and 79; all the sociodemographic characteristics are shown in table I.

About the WHODAS 2.0, it was observed that most of the elderly had no mild or medium difficulty in the last 30 days for most of the domains. The other data are in Table II.

Table I - Characterization of the sample of elderly residing in the countryside of Amazonas (n = 81)

Variable	Percent n (%)
Age (60 to 69 years old)	43 (32,8)
Age (70 to 79 years old)	53 (65,4)
Age (80 and 89)	26 (19,8)
Age (over 90 years old)	6 (4,6)
Sex female	91 (69,5)
Male sex	56 (69,2)
A native of the interior of the Amazonas	77 (95,1)
Retired persons	76 (93,8)
Not using a walking aid	74 (91,4)
Income of up to one minimum salary	72 (88,8)
Lives with someone	65 (80,2)
Using 1 to 4 medications	62 (76,5)
Subjective perception of poor or regular vision	56 (69,2)
Overweight or obese people	56 (69,2)
Education, illiterate, and incomplete primary school	55 (67,9)

Source: Melo, 2021

Table II - WHODAS 2.0 12-item version, degree of difficulty in the last 30 days (n = 81)

Variable	Frequency N%		
	Very Good	Good	
How do you rate your general health in the last 30 days?	43 (53,1)	14 (17,3)	
	Neither	Take	Middle
Standing for more than 30 minutes?	32 (39,5)	15 (18,5)	10 (12,3)
Taking care of your responsibilities To your home?	41 (50,6)	9 (11,1)	9 (11,1)
Learning a new task, such as for example, learning how to get to a new place	39 (48,1)	7 (8,6)	13 (16,0)
Problems participating in activities in the community in the same way as someone else?	46 (56,8)	8 (9,9)	12 (14,8)
Were you emotionally affected by your health problem?	35 (43,2)	17 (21,0)	16 (19,8)
Concentrate for 10 minutes to do something?	34 (42,0)	17 (21,0)	10 (12,3)
Walk a long distance, such as one kilometer?	36 (44,4)	7 (8,6)	15 (18,5)
Wash your whole body?	51 (63,0)	8 (9,9)	10 (12,3)
Get dressed?	58 (71,6)	10 (12,3)	6 (7,4)
Dealing with people you don't know?	47 (58,0)	16 (19,8)	10 (12,3)
Maintaining a friendship?	50 (61,7)	13 (16,0)	5 (6,2)
Your day-to-day work?	40 (49,4)	10 (12,3)	15 (18,5)
To what degree do these difficulties interfere with your life?	34 (42,0)	13 (16,0)	18 (22,2)
In the last 30 days	0 day		
How many days was this difficulty present?	40 (49,4)		
How many days were you incapacitated?	57 (70,4)		
Have you had to cut back or reduce your activities?	46 (56,8)		

Source: Melo, 2021

More than half of the elderly describe their health as regular or poor; the remaining information about subjective health assessment is in table [III].

Table III - Results of Subjective Health Assessment n = 81

Variable	Frequency N (%)
Activity today, compared to one year ago	66 (81,5)
Fair or poor	
Health today compared to 1 year ago	61 (75,3)
Fair or poor	
Health at present	54 (66,7)
Fair or poor	
Memory in comparison with another person of the same age	51 (63)
Fair or poor	
Health in comparison with other people of the same age	47 (58)
Fair or poor	

Fonte: Melo, 2021

Discussion

Most of the elderly in this study were women aged 70 to 79 who did not complete one year of schooling and have a wage income of 1 minimum wage or less. The high rate of women is due to their higher survival rate, differences in exposure to occupational risks, higher mortality rates from external causes among men, differences in lifestyles regarding alcohol and tobacco consumption, and higher demand for health services among them [16].

Regarding schooling, more than half of the elderly assessed in their homes in the city of Coari are illiterate or have only an incomplete primary school education, with the majority not having completed one year of schooling. This low level of education is because education is not seen as a priority in the region [17]. Many of the elderly in this study reported that during their childhood, they lived in the city's rural area and that the socioeconomic cost, along with the distance, was an obstacle to studying in the city. According to Torres & Reis, the difficulty of transportation contributes to the prevalence of illiterate or unlettered people [18].

The evaluation of functionality through WHODAS 2.0 showed that most of these elderly do not have difficulty performing their activities of daily living. There was a high percentage of elderly who reported no problems with disability due to pain or discomfort, which is reflected in their independence for the activities of daily living. These data reflect the elderly's quality of life since it is directly influenced by functionality related to independence and autonomy [12].

The elderly presented functional independence for almost all the functions evaluated; however, they self-reported terrible health compared to other people of the same age or reached the previous year, which is controversial since the literature shows that the more functional the elderly are, the greater their satisfaction with life and their well-being [19,20]. According to Soares *et al.* [21], good physical performance seems fundamental for functionality when facing daily demands and for good perception of life.

This reinforces the findings of Rocha *et al.* [22], who stated that higher levels of self-perceived health are associated with higher levels of independence in daily living.

People who are resilient in their daily life practices in youth and adulthood are precisely those who will generally have good health, few diseases, a good level of self-care, preserved physical and mental functioning, adherence to physical activities, social participation, and satisfaction with life, assuming that by middle age, such resilience tends to increase, functioning as a driver of adaptations to a prosperous old age [23,24].

One hypothesis to explain the adverse self-reported health may be related to the level of education of the elderly since it is related to cognitive decline [25]. The worsening of self-reported memory, lower cognitive performance, the presence of depressive symptoms, functional dependence, and the high prevalence of nonspecific complaints and comorbidities are included in the aging process, in which low education is one of the risk factors for these conditions found in the elderly [26,27]. This reinforces the findings of Medeiros *et al.* [28]. According to him, higher education is a limitation for studies with self-reported health, as it can compromise the understanding of the investigated questions and the quality of the answers.

Studies in developed countries have shown that self-rated health is strongly influenced by the socioeconomic status of the elderly and their families [29]. The self-assessment of health as excellent or very good stands out among the elderly with better education and income [30]. Another factor influencing this unfavorable result of self-reported health is the low income since most elderly subjects in this study did not earn more than one minimum wage.

Conclusion

The elderly living in Coari are mostly independent. In functional aspects, the elderly in this study have little functional limitation; however, the self-reported health does not match the degree of functionality that the data show, which may be caused by low income and low education. Further studies should be done to correlate the data found to know if cognition is not interfering with self-reported health. It is necessary to evaluate a more significant number of older people so that these data can be generalized to this population.

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Conflict of interest

The authors report no conflicts of interest.

Author's contribution

Data collection and manuscript writing: Melo VCM, Oliveira HGA; *manuscript writing and correction:* Prestes YA, Braga JAC; *Study orientation:* Checchi MHR, Leon EBD; *Concept and design of the study, critical review of the article and study orientation:* Campos HLM.

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