Cognitive evaluation of elderly people referenced at the Family Health Strategy in a city in Southern Minas Gerais*

AVALIAÇÃO COGNITIVA DE PESSOAS IDOSAS CADASTRADAS NA ESTRATÉGIA SAÚDE DA FAMÍLIA: MUNICÍPIO DO SUL DE MINAS

EVALUACIÓN COGNITIVA DE PERSONAS ANCIANAS REGISTRADAS EN LA ESTRATEGIA SALUD DE LA FAMILIA: MUNICIPIO DEL SUR DE MINAS GERAIS

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ABSTRACT

The objective of this descriptive, quantitative and cross-sectional study was to evaluate the cognition of elderly individuals. The sample consisted of 350 people aged ≥ 60 years. Instruments: sociodemographic and health questionnaire and MEEM. The sample contained 60.0% women, mean age of 70.3 years, 54.0% had an incomplete primary education, 61.1% were married and the mean income was 1.54 minimum salaries (MS). Of the participants, 38.6% perceived their current health state as regular; 49.4% considered it to be the same as the last year; 37.4% believed that they were better than people of the same age. MEEM: among the 76 individuals without education, it was found that 5.3% presented cognitive decline, in the 265 participants with low and medium education 4.9%, among those with superior education (9) no cognitive decline was identified. The lowest means found referred to the memory and attention domains. It was also found that 4.9% (17) of the elderly may be developing cognitive impairment.

DESCRIPTORS
Aged
Cognition
Mental health
Family health

RESUMO

Avaliar a cognição de pessoas idosas. Estudo descritivo, quantitativo, transversal. Amostra de 350 pessoas, com idade ≥ 60 anos. Instrumentos: Questionário sociodemográfico e de saúde e MEEM. A amostra tinha 60,0% de mulheres, idade média 70,3 anos, 54,0% cursaram ensino fundamental incompleto, 61,1% casados e renda média de 1,54 SM. Foram 38,6% os que percebiam o estado atual de saúde como regular; 49,4% o consideravam igual ao do último ano, 37,4% acreditavam estar melhor do que pessoas da mesma idade. MEEM: nos 76 sem escolaridade encontrou-se 5,3% com declínio cognitivo, nos 265 com baixa e média escolaridade 4,9%, nos de nível superior (9) não se encontrou. As menores médias encontradas foram nos domínios memória e atenção. 4,9% (17) dos idosos podem estar desenvolvendo déficit cognitivo.

DESCRITORES
Idoso
Cognição
Saúde mental
Saúde da família

RESUMEN

Evaluar el conocimiento de personas ancianas. Estudio descriptivo, cuantitativo, transversal. Muestra de 350 personas, con edad ≥ 60 años. Instrumentos: cuestionario sociodemográfico y de salud y MEEM. La muestra se constituía de 60,0% de mujeres, edad promedio 70,3 años, 54,0% con educación básica incompleta, 61,1% casados y renta media de 1,54 SM. El 38,6% percibió el actual estado de salud como regular, 49,4% lo consideraban igual al del año anterior, 37,4 creían estar mejor que personas de su misma edad. MEEM: entre los 76 no escolarizados se encontró un 5,3% con declinación cognitiva, entre los 265 con baja y media escolarización, 4,9%; entre los de nivel superior (9) no se encontró. Los menores promedios encontrados respondieron a los dominios memoria y atención. El 4,9% (17) de los ancianos podría estar desarrollando déficit cognitivo.

DESCRIPTORES
Anciano
Cognición
Salud mental
Salud de la familia

INTRODUCTION

The elderly population is growing significantly around the world. This is due to an increase in life expectancy, declining mortality rates, and increased morbidity, the latter being a phenomenon that encompasses a picture of complex and costly diseases that are typical of longevity. This demographic and epidemiological transition has brought about a significant impact, and has therefore raised questions about the emerging need for action to promote healthy aging and the restructuring of the provision of services to the elderly in all areas[1-3].

In 2000, the percentage of those over 60 years reached 8.2%. In Brazil, the elderly currently represent about 15 million people[4], and it is estimated that by 2020 it will have the sixth largest elderly population, with a contingent of 30 million.

The changes experienced in the aging process are peculiar to this phase of life, making the elderly into fragile beings who are vulnerable to pathological processes[3,5].

The elderly may now be considered an emerging population with their own needs, which increasingly require greater commitment and qualification from health professionals[6].

Cognitive deficits are commonly observed in the process of natural aging and have the following characteristics: forgetfulness of recent events, difficulty in calculations, changes in the state of attention, and decreased concentration and reasoning, as well as the slowing of gross motor activities and reduced fine motor skills[7].

The alterations presented, along with deficits caused by mild cognitive impairment (MCI), lead to functional decline, with the reduction or loss of skills for the carryng out of daily activities. Depending on the case, there may be difficulty in self-care, compromised language development, loss of ability to orient and recognize faces, sleep disorders, and difficulty in walking[8].

The most common causes that can lead to the loss of cognitive ability are: stroke, infection, traumatic brain injury, metabolic encephalopathy, momentary loss of memory, dementia, alcoholism, sedentary lifestyle, hypothyroidism, cancer, and medications such as anxiolytics, antipsychotics, hypnotics, antihistamines, antiparkinsonian drugs with anticholinergic effect, and anticonvulsants[7].

Cognitive function in the elderly can be assessed using various means, and Mini-Mental is the most widely-used assessment tool, allowing the monitoring of cognitive dysfunctions associated with other diseases, as well as subtle changes, and the investigation of the prevalence and incidence of dementia processes[9].

The objective of this study was to evaluate the cognition of the elderly enrolled with the urban teams of the Pouso Alegre, MG Family Health Strategy (FHS).

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METHOD

The study was conducted in the city of Pouso Alegre, MG. The population of interest was 350 elderly of both genders, aged more than 60 years, living in areas of urban coverage of the FHS teams and who agreed to participate in the research. Pouso Alegre has a population of 130,586 inhabitants, of whom 6,000 are seniors enrolled with the FHS.

The city has a basic health network consisting of 23 Basic Health Units and 21 Family Health teams.

This study employed a descriptive, observational, individual, and transversal quantitative approach. The sample was non-probabilistic intentional or rational, based on spontaneous attendance or through home visits along with the community health worker.

Two instruments were used for data collection: a questionnaire to collect demographic data and the Mini-Mental State Examination (MMSE). The MMSE was used first, followed by the data collection questionnaire. The MMSE contains 30 questions that assess cognitive function in several ways: time orientation, space orientation, attention and calculation, memory evocation, register, and language. Scores on the MMSE range from 0 to 30.

For a possible diagnosis of cognitive impairment, defined cutoff scores were differentiated, taking into account education level. A score of 13 was assigned for no schooling, 18 for elementary and middle school (from fourth to eighth years), and 26 for those with higher education[9].

The second questionnaire (sociodemographic and health) was aimed at obtaining personal, family, social, economic, and health data about the respondent: these included gender, age, marital status, education, religion, family type, number of children, job, monthly salary, and current status of health and chronic diseases, through closed questions only. Its preparation was based on the BOAS (Brazil Old Age Schedule) questionnaire[10]. For each item, the patient was asked to indicate the answer appropriate for him or her. In case of doubt, the question was read back until the interviewee understood it.

The average time spent for the application of the surveys was twenty minutes, and the period for collection for 350 questionnaires was approximately nine months.

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Data were organized using Microsoft Office Excel®. It was presented in a descriptive form, using as variables continuous measures of central tendency (mean and median) and of dispersion (standard deviation, minimum, maximum, and amplitude). The nominal variables were described by proportions.

We obtained consent from the Municipal Secretary of Health for conducting the research, which was approved by the Ethics Committee in Research of UNIVÁS under Protocol 1321/10.

RESULTS

The study was conducted with 350 elderly, having a mean age of 70.3 years (SD = 7.4). There was a female predominance (60.0%).

Of the respondents, 94.9% practiced some type of religion; 74% were Catholic, 20.9% Evangelical, and 5.1% did not practice any religion. While 78.6% could read and write, 21.7% had no schooling and 54% had incomplete primary education; 14.3% had completed elementary school, 7.4% high school, and 2.6% university. 61.1% were married, 6.0% single, 4.9% divorced, and 28% were widowed.

The predominant form of organization was the nuclear family (78.0%). 20.6% took the form of extended family, and only 0.3% varied. Those with children amounted to 93.4%, with an average of 4.5 children per family.

It was observed that 55.7% were retired and did not work, and that 56.3% had incomes between one and two times the minimum wage, with an average salary of 1.54 times the minimum wage (SD = 0.70), with 2.67 people (SD = 1.57), on average, maintained by that income. Regarding the perception of general health, 38.6% considered their current health as fair, and 34.9% as good. In comparing their current health with their previous status, 49.4% reported no change. When asked to compare it with that of other people of the same age, 49.7% said that theirs was better or much better.

It was observed that 84.5% of respondents were suffering from some type of health problem. In case they became ill or disabled, 47.7% would choose their children to be caregivers.

Hypertension was prevalent in 37.1% of respondents, 34% of whom lived from one to ten years with the disease; the mean duration of the medical condition was 1.57 years (SD = 1.33).

52.0% of the sample did not perform any physical activity, and 48.0% did some kind of activity: walking was the most frequent (41.1%).

The group was divided in order to analyze the MMSE. The group G1 included 76 people who were assigned a score of 13 points (no schooling). For these we found a mean score of 19.8 (SD = 4.7). G2 was composed of 265 elderly people with low and medium education levels, with a score of 18 points. The average MMSE of this group was 25.0 (SD = 4.1). The G3 group had nine subjects, with higher education, with a score of 26. The mean score found for this group was 26.7 (SD = 2.17).

Among the 76 members of G1 (uneducated), four (5.3%) were found to suffer cognitive impairment. In G2 (low and middle school), which had 265 people, there were thirteen (4.9%) with that deficit. Among the higher educated subjects there was no evidence of decline. Thus, the population of 350 elderly people presented seventeen cases (4.9%) that had MMSE scores indicative of cognitive impairment.

DISCUSSION

The presence of a higher proportion of women in the sample is related to the fact that mortality is lower in women than in men, and that they use health services more often than men. In addition, they are more often at home[4] when home visits take place.

Studies show that age and education are factors that are directly related to the decline in cognition[1,3,11], with illiteracy being associated with the risk of disability and death[12]. This fact is corroborated by the findings of this study, since the average age was high and there was a significant proportion of subjects with no or low education (75.7%).

There was a prevalence of elderly married couples (61.1%). The presence of a spouse provides security, as well as financial and emotional stability[13]. However, many changes are happening in the characterization of families in Latin America and Brazil: an increasing number of divorces, remarriages, the migration of young people to more promising job markets, and women gaining ground in the labor market as well as managing the home.

The nuclear family type, which was predominant, and the average of 4.5 children were similar to those found in the Demographic Census, and reveal the shift over the past 40 years related to the number of children, triggered by the drop in fertility rate[14].

The majority of respondents (55.7%) were retirees who did not work. Their income was low, ranging between one and two times minimum wage. The financial issue greatly affects the elderly: usually, the benefits they receive upon retirement are not enough to meet their needs and those of their dependents[15].

In this study, most seniors rated their health positively. Self-perceived health status emerges as an indicator of well-being which is very useful in assessing health needs and has a predictive function for survival. The positive

perception of health among the elderly is linked to their degree of autonomy[16-17].

Morbidity from chronic non-communicable diseases is common for the age range studied, but the prevalence observed in this study was lower than that found in studies conducted throughout the country[4,11].

The elderly reported that they relied on the services of a caregiver; they would prefer that this be their children or spouse. These options, when referring to males, match what occurs in most countries. Being a caregiver is an activity performed mainly by women, the vast majority being wife and daughters, due to the fact that women have reduced access to remunerated activities outside the home, and thus have more time to provide for the care-dependent individual[18]. It is important, in this case, to also take into account the emotional issues that permeate the interviewee's choice, leading them to seek caregivers with whom they are close and whom they trust.

Studies show that physical activity improves the quality of life among elderly practitioners, and thus plays a positive role in the improvement of aging[19], insofar as individuals considered active and moderately active are at lower risk of suffering from mental problems than sedentary ones, thereby reinforcing the fact that physical exercise has many benefits and contributes to physical well-being and mental health[20]. These remarks apply to the group studied, since most of them (52.0%) reported practising some form of physical activity.

According to the MMSE, out of the 350 individuals studied, 4.9% suffered cognitive impairment. This proportion is lower than the prevalence of cognitive impairment in the elderly found in international studies, who showed variations estimated between 6.3%[7] and 46.0%[21]. Also, it was lower than those observed in other Brazilian studies: 6.8% in Salvador, Bahia[22]; 5.9% in the city of Rio de Janeiro; and between 8.0% to 29.7% in three different districts of the city (upper-, middle-, and lower-class regions respectively)[7, 21-23].

Aging causes the elderly to suffer cognitive impairments commonly observed in this phase of life, such as difficulty remembering recent events, developing estimates, and problems with attention. This loss is observed only when they rely on their memory more than the usual; for people who already have an established routine,

which does not require intellectual activity, it is more difficult to detect, which can lead to delayed diagnosis of a serious illness[2-3, 7, 11, 21-23].

Cases of cognitive impairment were found only among subjects with no or little schooling. Among the more educated, the problem did not occur in this study. Some authors claim that the higher the education level, the less likely the development of dementia such as Alzheimer's disease. Individuals with low education were more likely to develop dementia[3, 7, 11-12, 17, 23]. The educational level plays an important role in the performance of neuropsychological tasks and in brain organization, besides being a protective factor against neurological diseases. It is an accurate indicator, as it is related to the possibility of access to health services, employment, paid work, and adhesion to health and educational programs, while illiteracy causes increased susceptibility to loss of independence[11, 23]. Education significantly influences the results of the MMSE; the higher the education level, the higher the scores[13]. The results found in this study reinforce the findings of the authors cited, who showed that cognitive function among older adults with no schooling was more affected than among those who had education.

With advancing age, the body presents losses in functional capacity through a slow process of degeneration, mainly resulting in memory impairment[22-23]. This could be observed inasmuch as the memory and attention domains were those that returned the lowest average MMSE scores of the MMSE.

CONCLUSION

According to the proposed objective, the results of this study revealed that 4.9% of the elderly suffered probable cognitive impairment, and this prevalence was focused on groups with less education.

Because the Family Health Strategy is a health care model that performs systematic and monthly home visits to families within its area of coverage, it is recommended to apply the MMSE to the elderly, with the goal of early detection of cognitive decline and preparing families for its care, particularly by inserting activities in their routines that can reduce or delay its onset.

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