Revista Brasileira em Promoção da Saúde
e-ISSN:1806-1230
Original Article
DOI: 10.5020/18061230.2020.10328

Factors associated with self-rated health in older adults from community groups

Fatores associados à autopercepção de saúde entre idosos de grupos comunitários

Factores asociados con la autoimagen de salud entre mayores de grupos comunitarios

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ABSTRACT

Objective: To investigate the association between negative self-perception of health and individual characteristics in older adults from community groups in Southeastern Brazil. **Methods:** This cross-sectional study was carried out between 2014 and 2017 with a sample of 157 older adults from 2 social groups held by social and/or religious services in the city of Juiz de Fora, Minas Gerais, Brazil. A structured questionnaire containing questions used in population-based surveys was used and anthropometric measurements of weight, height and waist circumference (WC) were taken. Self-rated health (the outcome variable) was assessed using the following question: would you say your health is bad, fair, good, or very good? The answers were categorized into negative self-perception (poor and fair) and positive self-perception (good and very good). Descriptive statistics, Mann-Whitney test, Fisher's test, Chi-squared test, and multivariate logistic regression were used. **Results:** The rate of negative self-perception of health was 32.5%. Negative self-perception of health was associated with lower levels of income (OR=5.02; 95%CI: 2.08 - 12.08), physical inactivity (OR=3.51; 95%CI: 1.26 - 9.78), and presence of two or more diseases (OR=4.96, 95%CI: 2.10 - 11.72), regardless of age and sex. **Conclusion:** Negative self-perception of health was associated with lower levels of income, physical inactivity and presence of two or more associated diseases.

Descriptors: Aged; Self Concept; Risk Factors; Cross-Sectional Studies.

RESUMO

Objetivo: *Investigar a associação entre a autopercepção negativa de saúde e características individuais entre idosos de grupos comunitários do Sudeste do Brasil.* ***Métodos:*** *Trata-se de estudo transversal, realizado entre os anos 2014 a 2017, com amostra de 157 idosos participantes de 2 grupos de convivência de dispositivos sociais e/ou religiosos da cidade de Juiz de Fora, Minas Gerais, Brasil. Por meio de um questionário estruturado, baseado em questões utilizadas em inquérito populacional e de aferição de medidas antropométricas de peso, altura e circunferência da cintura (CC), avaliou-se a autopercepção de saúde (variável resposta) por meio da seguinte pergunta: o(a) senhor(a) diria que sua saúde está: ruim, razoável, boa ou muito boa? As respostas foram categorizadas em autopercepção de saúde negativa (ruim e razoável) e positiva (boa e muito boa). Realizaram-se estatísticas descritivas, testes Mann-Whitney, Fisher e qui-quadrado e regressão logística multivariada.* ***Resultados:*** *A proporção de autopercepção negativa de saúde foi de 32,5%. A autopercepção negativa de saúde associou-se à menor renda (OR=5,02; IC95%: 2,08 - 12,08), à inatividade física (OR=3,51; IC95%: 1,26 - 9,78) e à presença de duas ou mais doenças (OR=4,96; IC95%: 2,10 - 11,72), independentemente da idade e do sexo.* ***Conclusão:*** *A autopercepção negativa de saúde associou-se à menor renda familiar, à inatividade física e à presença de duas ou mais doenças associadas.*

Descritores: *Idoso; Autopercepção; Fatores de Risco; Estudos Transversais.*

Received on: *02/06/2020*
Accepted on: *07/23/2020*

RESUMEN

Objetivo: *Investigar la asociación entre la auto percepción negativa de salud y las características individuales entre mayores de grupos comunitarios del Sudeste de Brasil.* ***Métodos:*** *Se trata de un estudio transversal realizado entre los años 2014 y 2017 con la muestra de 157 mayores participantes de 2 grupos de convivencia de dispositivos sociales y/o religiosos de la ciudad de Juiz de Fora, Minas Gerais, Brasil. A través de un cuestionario estructurado basado en las preguntas utilizadas en encuesta poblacional y tras la verificación de las medidas antropométricas de peso, altura y circunferencia de la cintura (CC), se evaluó la auto percepción de la salud (variable respuesta) a través de la siguiente pregunta: ¿En su opinión su salud está mala, mediana, buena o muy buena? Las respuestas han sido categorizadas en auto percepción de salud negativa (mala y mediana) y positiva (buena y muy buena). Se realizaron las estadísticas descriptivas, las pruebas de Mann-Whitney, Fisher y chi-cuadrado y la regresión logística multivariada.* ***Resultados:*** *La proporción de la auto percepción negativa de salud ha sido del 32,5%. La auto percepción negativa de salud se asoció con la menor renta (OR=5,02; IC95%: 2,08 - 12,08), la inactividad física (OR=3,51; IC95%: 1,26 - 9,78) y la presencia de dos o más enfermedades (OR=4,96; IC95%: 2,10 - 11,72), independientemente de la edad y del sexo.* ***Conclusión:*** *La auto percepción negativa de salud se asoció con la menor renta familiar, la inactividad física y la presencia de dos o más enfermedades asociadas.*

Descriptores: *Anciano; Autoimagen; Factores de Riesgo; Estudios Transversales.*

INTRODUCTION

Population aging is an achievement worldwide and reflects, in general, the improvement in living and health conditions experienced by individuals. In developed countries, this change in the age profile has occurred gradually over the past two centuries[1,2]. On the other hand, in developing countries, such as Brazil, this phenomenon occurred quickly and intensely, thereby creating great challenges for public policies[1-3].

Most older adults live with chronic and multiple diseases, which lead to the use of a high number of medications, functional disability, frailty, and other complications that favor recurrent and long hospital stays. In addition to these characteristics, the aging process is also affected by conditions, lifestyles and environmental and emotional factors, and it is worsened by a scenario of scarcity of social and financial resources for the older population[1,4,5]. In this context, a multidimensional assessment is essential to understand aging and its care demands at the individual and population levels, which can contribute to the recognition of the various factors that influence the quality of life and wellbeing of this specific group[6].

In that regard, self-rating is defined as a set of attributes or characteristics by which individuals describe themselves and which originate from their own experiences and interpretations[7]. When used to describe the general health status, self-rating or self-assessment is a valid indicator of quality of life, morbidity and functionality, and a good predictor of mortality[8]. Therefore, its use as an important health marker in this age group[4,9,10] has expanded in recent decades, as it is a simple and low-cost tool with a high potential for applicability in risk screening to control and reduce the vulnerability of older adults[11].

Self-rated health should be evaluated in a multi-professional way because the perceptions of aging itself influence and are influenced by psychological, physical, functional and clinical dimensions. Moreover, population aging is already a reality at the different levels of health care[11].

Thus, considering the multiple determinants of self-rated health among older adults, the need for frequent studies that investigate the profile of this assessment and its associated factors at national, regional and even local levels is justified as they are surveillance tools and indispensable elements for planning public policies and intervention programs targeted at this population group. One of these policies, the Health Promotion Policy, is based on the expanded concept of health and is characterized by a set of strategies and ways of producing health aimed at equity and quality of life[12]. This policy has principles and values that improve the health of individuals and communities, reduce vulnerabilities and health risks, and, given their potential to produce comprehensive knowledge of these conditions, have a great impact on health promotion[6,12,13].

Thus, the aim of this study was to investigate the association between negative self-perception of health and individual characteristics in older adults from community groups in Southeastern Brazil.

METHODS

This cross-sectional study was carried out between 2014 and 2017 by the Center for the Study of the Older Person (*Núcleo de Estudos da Pessoa Idosa*) at the Federal University of Juiz de Fora (*Universidade Federal de Juiz de Fora*), on the Governador Valadares campus, Minas Gerais, Brazil.

The study was conducted with a convenient sample of older adults participating in 2 social groups organized by social and/or religious institutions in the city. The main objectives of these groups are the promotion of health through physical activity and the encouragement of social interaction. Meetings are held daily, and several group activities are carried out, such as: dancing, board games, handcrafting, swimming, water aerobics, and stretching exercises. In addition, through partnership with the University's research group, the older adults were served by extension projects, such as consultations and health education activities on topics of interest to this population (nutritional, pharmaceutical and dental guidelines). Dancing lessons, memory workshops, and Pilates sessions were also held.

There are several social groups in the city of Governador Valadares. Therefore, the criterion used to include the groups in the present study was the relationship they had with the University, that is, the study included the groups that were also served by University extension projects. Groups with no link to the university were automatically excluded. As for the criteria for inclusion of the participants in the present study, we included older adults who attended the pre-established places and who were aged 60 years or older on the day of the assessment. On the other hand, the study excluded the older adults who did not attend the interview after three appointments, those who had some difficulty in communication that could hinder data collection, and those who refused to participate in the study.

Regarding the calculation of the sample size, it should be noted that the urban territory of the municipality has 25,905 people aged between 60 and 80 years[14]. Given these data and considering a margin of error (alpha) of 5% and a confidence level of 90%, the sample size of this study was estimated to be 173 participants.

Data were collected using an author-developed questionnaire specifically designed for this study based on questions used in a nationwide population survey[15] largely used in epidemiological studies. Properly and equally trained researchers collected the data through face-to-face interviews previously scheduled by telephone. The interviews took place where the social groups were held. The heads of each social group provided telephone contacts. In addition to the interview, anthropometric measurements of weight, height and waist circumference (WC) were also taken using a portable digital scale with a capacity of 180 kg and accuracy of 100 g, respectively (P150M, Líder®, São Paulo, Brazil), a portable stadiometer with a capacity of 2.13 m and a precision of 1 mm (Alturexata®, Minas Gerais, Brazil), and an anthropometric measuring tape with a capacity of 180 cm and precision of 1 mm (Wiso®, São Paulo, Brazil).

Anthropometric measurements were carried out using the techniques recommended by the World Health Organization[16,17]. Weight was measured with the participant positioned on the center of the scale, which had been previously zeroed. The participant was barefoot, upright, with the feet together and arms extended alongside the body and wearing minimal clothing. Height was measured after the older person's inspiration while positioned at the center of the stadiometer with the head up, staring at a point at the eye level, barefoot, legs and heels in parallel, and with calves, buttocks, scapulae and posterior part of the head aligned. WC was measured at the midpoint between the iliac crest and the lateral costal margin, with the measurement taken after the participant expired[16,17].

Self-rated health, the response variable, was assessed by asking the following question: would you say your health is: poor, fair, good or very good? Responses were categorized into negative (poor and fair) and positive (good and very good) self-rated health.

The explanatory variables were divided into four blocks. The first block, named demographic and socioeconomic, included the variables age, sex (women and men), marital status (with and without partner), education (up to 4 years, 5 to 8 years, 9 to 11 years and ≥ 12 years of study) and income (<2 minimum wages and ≥2 minimum wages).

The second block include the lifestyle domain variables: smoking (never smoked, former smoker and current smoker)[15], drinking (yes and no)[15], physical activity in the last month (yes and no) and daily consumption of fruits and/or vegetables (yes and no)[18].

The third health block included chronic diseases (diabetes, hypertension, arthritis/rheumatism, osteoporosis, depression and/or asthma/bronchitis), self-reported diseases (one or no chronic disease and two or more)[15], medication use (yes and no) and functional capacity (independent or dependent), which was measured by the questions: do you have difficulty getting from bed to chair or from chair to bed? Do you have difficulty feeding yourself? Do you have

trouble dressing yourself? Do you have difficulty bathing alone? Do you have difficulty walking at least 1.5 km without getting tired? The response options for these questions were yes or no. The variables were categorized by the sum of these questions into "dependent" – when individuals answered yes to at least one question – and "independent" – when they answered no to all the questions. Questions about functional capacity were based on the Katz Index[19].

Finally, the fourth block included the anthropometric variables, namely body mass index (BMI) (low weight=BMI<22kg/m^2; normal weight=BMI between 22kg/m^2 and 27kg/m^2; and overweight=BMI>27kg/m^2)[20] and waist circumference (WC) (without cardiovascular risk = WC<94cm for men WC<80cm for women; high risk = WC between 94 and 101 cm for men and between 80 and 87 cm for women; and very high risk = WC≥102 cm for men and WC≥88 cm for women)[17].

For the descriptive analyses, frequencies and proportions were calculated for categorical variables and for age, given its nonparametric distribution, based on the median and the interquartile interval between the first and the third quartiles (Q1-Q3). Associations between self-rated health and the categorical explanatory variables were checked by the chi-squared test and Fisher's exact test, the latter being used when the cells had expected values below 5. In addition, the association between the response variable and age was measured using the Mann Whitney test. Explanatory variables with a p-value of less than 0.20 in the bivariate analysis were selected for analysis in the multivariate logistic model using the backward stepwise method for the removal of the variables. In this analysis, hierarchical entry of the variables in blocks was adopted, with the introduction of the blocks in the following sequence: socioeconomic and demographic, lifestyle, health, and anthropometric measures. With the entry of each block of variables, a new analysis model was obtained. The significance level was set at 5%, with a 95% confidence interval (95%CI) in the analyses.

This study was approved by the Research Ethics Committee of the Federal University of Juiz de Fora (*Universidade Federal de Juiz de Fora*), under Approval No. 1.233.097. The study is in accordance with Resolution No. 466/2012 and Resolution No. 510/2016. All the participants previously received information about the data collection procedures and signed an Informed Consent Form.

RESULTS

The total sample consisted of 157 participants, reaching 90.8% of the calculated sample size. Twenty older adults did not attend the interview after three appointments.

The proportion of negative self-rated health was 32.5% (95%CI: 25.1 - 39.9). The median age was 69 years, with 65 years corresponding to the first quartile and 74 years to the third. The sample was mostly composed of older women (85.4%) and individuals living without a partner (57.3%), with low levels of education (49.7%), with an income of less than two minimum wages (56.6%), and presence of two or more self-reported chronic diseases (52.9%). Further information on the characterization of the sample is described in Table I.

In bivariate analyses, self-rated health was associated with education (p=0.006) and income (p<0.001) in the socioeconomic and demographic variables block. In the health block, self-rated health was associated with self-reported disease (p<0.001), medication use (p=0.005) and functional capacity (p=0.012). In the lifestyle block, physical activity was associated with self-rated health (p=0.001). Finally, in the anthropometric assessment block, WC was associated with self-rated health (p=0.043), as per the data presented in Table II.

As described in Table III, the results of the multivariate analysis showed that, regardless of age and sex, the older adults who had an income below two minimum wages were more likely to rate their health negatively (OR=5.02; 95%CI: 2.08 - 12.08), and so were those who did not do physical activity (OR=3.51; 95%CI: 1.26 - 9.78). Furthermore, the older adults who reported two or more diseases were also more likely to rate their health negatively (OR: 4.96; 95%CI: 2.10-11.72) compared to those who reported none or one disease. The model presented an adequate adjustment (Goodness of fit p=0.598).

Table I - Characterization of older adults participating in community groups in Governador Valadares, Minas Gerais, 2014-2017.

Variables	Total (n=157) n / median (% / Q1-Q3)
Ages (years)	69 (65-74)
Sex	
Men	23 (14.6)
Women	134 (85.4)
Marital status	
Without a partner	90 (57.3)
With a partner	67 (42.7)
Education[*] (years)	
Up to 4	77 (49.7)
5-8	27 (17.4)
9-11	27 (17.4)
≥ 12	24 (15.5)
Income[**]	
< 2 MW	86 (56.6)
≥ 2 MW	66 (43.4)
Morbidity	
1 or no disease	74 (47.1)
≥ 2 diseases	83 (52.9)
Medication use	
No	14 (8.9)
Yes	143 (91.1)
Functional capacity[***]	
Independent	97 (69.8)
Dependent	42 (30.2)
Smoking[****]	
Never smoked	101 (65.6)
Ex-smoker	46 (29.9)
Smoker	7 (4.5)
Physical activity[*****]	
No	26 (16.7)
Yes	130 (83.3)
Drinking[******]	
No	93 (67.4%)
Yes	45 (32.6)
Healthy consumption	
No	8 (5.1)
Yes	149 (94.9)
BMI	
Normal weight	54 (34.4)
Underweight	14 (8.9)
Overweight	89 (56.7)
WC	
Without risk	39 (24.8)
High risk	51 (32.5)
Very high risk	67 (42.7)

Q1-Q3: interval between the first and third quartiles; MW: minimum wage; BMI: body mass index; WC: waist circumference. [*]02 missing; [**]05 missing; [***]18 missing; [****]03 missing; [*****]01 missing; [******]19 missing

Table II - Association between self-rated health and the variables analyzed among older adults participating community groups in Governador Valadares, Minas Gerais, 2014-2017.

Variables	Negativa self-rating n/ median (% / Q1-Q3)	Positive self-rating n/ median (% / Q1-Q3)	p-value
Age (years)	69 (65-75)	69 (64-74)	0.680
Sex			0.478
Men	6 (11.8)	17(16.0)	
Women	45 (88.2)	89 (84.0)	
Marital status			0.792
Without a partner	30 (58.8)	60 (56.6)	
With a partner	21 (41.2)	46 (43.4)	
Education			0.006*
Up to 4 years	29 (59.2)	48 (45.3)	
5-8 years	13 (26.5)	14 (13.2)	
9-11 years	4 (8.2)	23 (21.7)	
≥ 12 years	3 (6.1)	21 (19.8)	
Income			<0.001*
< 2 MW	39 (78.0)	47 (46.1)	
≥ 2 MW	11 (22.0)	55 (53.9)	
Morbidity			<0.001*
1 or no disease	12 (23.5)	62 (58.5)	
≥ 2 diseases	39 (76.5)	44 (41.5)	
Medication use			0.005**
No	0 (0.0)	14 (13.2)	
Yes	51 (100.0)	92 (86.8)	
Functional capacity			0.012*
Independent	27 (56.3)	70 (76.9)	
Dependent	21 (43.8)	21 (23.1)	
Smoking			0.453
Never smoked	30 (58.8)	71 (68.9)	
Ex-smoker	18 (35.3)	28 (27.2)	
Smoker	3 (5.9)	4 (3.9)	
Physical activity			0.001*
No	16 (31.4)	10 (9.5)	
Yes	35 (68.6)	95 (90.5)	
Drinking			0.076
No	37 (77.1)	56 (62.2)	
Yes	11 (22.9)	34 (37.8)	
Healthy consumption			0.276
No	4 (7.8)	4 (3.8)	
Yes	47 (92.2)	102 (96.2)	
BMI			0.205
Normal weight	14 (27.5)	40 (37.7)	
Underweight	3 (5.9)	11 (10.4)	
Overweight	34 (66.7)	55 (51.9)	
WC			0.043*
Without risk	9 (17.6)	30 (28.3)	
High risk	13 (25.5)	38 (35.8)	
Very high risk	29 (56.9)	38 (35.8)	

Q1-Q3: interval between the first and the third quartiles; MW: minimum wage; BMI: body mass index; WC: waist circumference

Table III - Multivariate logistic regression analysis of self-rated health among older adults participating in community groups in Governador Valadares, Minas Gerais, 2014-2017.

Variables	OR	95%CI	p-value
Income			
< 2 MW	5.02	2.08 - 12.08	<0.001
≥ 2 MW	1.00		
Physical acitivty			
No	3.51	1.26 - 9.78	0.017
Yes	1.00		
Morbidity			
≥ 2 diseases	4.96	2.10 - 11.72	<0.001
1 or no disease	1.00		

*Model adjusted for age and sex. OR: odds ratio; 95%CI: 95% confidence interval; MW: minimum wage

DISCUSSION

The main findings of the present study indicated that older adults who reported a negatively self-rated health had lower income, did not do physical activity and self-reported two or more chronic diseases.

In the present study, 32.5% of the older adults negatively self-rated their health. The literature describes the occurrence of this condition in older adults living in the community ranging from 12.6% to 70.1%[4,11,21-23]. This variation may be partly explained by the absence of an international standard of response and categorization options[21]. Other issues may also explain these differences, such as the source of information (person interviewed or third parties, such as caregiver or guardian), differences in the position of the questions in the questionnaire, and aspects of the study design and analysis adjustments[24]. Comparisons between studies, countries and subpopulations should be made with caution, since the differences between prevalence rates may not be consistent with objective indicators, but rather attributed to methodological differences[25].

The negative self-rating of health exhibited a multidimensional feature in the analyzed group, as it was associated with socioeconomic, lifestyle and health conditions, a characteristic also detected in other studies demonstrating the approximation of different determinants with the expanded concept of health and corroborating the findings presented herein[21,24,26-29].

Income and living conditions are strongly related to health conditions and older adults' self-perception of these conditions[4,25,30]. It is known that poverty and/or low levels of education in old age translate into less access to services, worse adherence to preventive and curative interventions, higher proportional expenses with medication and food, reduced social life and a higher level of dependence[30,31].

As for lifestyle, physical activity has several benefits for this population group specifically, such as: improvement of biological functionality and organic preservation; control of body weight and fat mass; preservation of muscle mass; disease prevention and control; maintenance of functional capacity and autonomy[32]. Furthermore, physical activity favors the development of socialization networks and greater interaction with peers and other generations, which contributes to the exchange of experiences, knowledge and social inclusion, thus resulting in improved self-esteem and health[33,34]. It is worth mentioning that regular physical activity is one of the most important determinants of active aging in the population among the factors related to behavior and lifestyle[35].

Evidence of the association between self-rated health and physical activity is reported in several national and international studies. In a study conducted with older adults using the Unified Health System in the city of Goiânia, Goiás, some factors were found to be associated with negative self-rating of health status, including low levels of education, use of five or more medications, recent weight loss and physical inactivity, the latter being strongly associated with this condition[26]. Similarly, another study carried out in the Metropolitan Region of Belo Horizonte found an association between the reduction in the levels of physical activity and the negative self-rating of health status among older adults[28]. Finally, a recent study showed that older adults living in a European country who had never done vigorous or moderate physical activity rated their health as negative[36].

In addition to the aforementioned studies, which investigated leisure time physical activity, a recent study conducted in European countries and in the United States with 15,333 older men and 20,907 older women also investigated the relationship between self-rated health and physical activity during housework. Its results showed that there is an association between self-rated health and the performance of this type of activity, showing that the longer the duration of housework, the greater the chance that individuals will rate their own health as good[23].

With regard to the presence of chronic diseases, the results of the present study corroborate other studies. A study carried out in China with adults and older adults showed that the presence of multiple and varied diseases was associated with negative self-rating of health, with the strongest association found for cardiometabolic diseases in the population analyzed[37]. A literature review showed that negative self-rating of health is prevalent among older adults and it is associated primarily with the presence of diseases[22]. Furthermore, the literature review showed that negative self-rating of health was associated with the number of medications used, household income, hospitalizations, medical appointments, difficulty/disability in activities of daily living, presence of depressive symptoms, anxiety, and insomnia complaints[22].

Presence of diseases, commonly observed in this population group, is associated with self-rated health because it is a relevant to the appearance or development of functional and instrumental disabilities in daily life, which consequently affect the quality of life and wellbeing of these individuals[37-39]. However, it is important to highlight that self-rating health as good/very good often occurs even among those diagnosed with chronic diseases. This finding reinforces the idea that the judgment of one's own health condition is more closely related to the occurrence of disabilities and loss of autonomy than to the disease itself[6].

This study, however, found no association between functional capacity and negative self-rating of health. This fact may be related to the sample selection process and its characterization. The study selected older adults who actively participated in community groups, who are hence expected to be more independent. Furthermore, it was not possible to identify a sufficient number of dependent participants to check for potential associations. On the other hand, the scientific literature points out that this association may exist. A study conducted with this population group in three Brazilian cities showed that functional disability was associated with negative self-rating of health[21]. Research conducted in South Korea assessed how much negative self-rating of health could predict a decline in functional capacity after two years of follow-up among 2,824 older adults without disabilities at baseline. The results showed that at the end of the follow-up, 4.9% of the participants reported a decline in functional capacity, and negative self-rating of health was significantly associated with such decline[40].

It is important to note that other factors may be associated with negative self-rating of health, such as low levels of education, use of medications and drinking[4,29], although this association was not found in the present study. Furthermore, social support and interaction, access to and use of health services, internet use and falls can also be associated with this condition[4,29], but these variables were not investigated in the present study.

Some limitations of this study must be considered. One of them is the cross-sectional design of the study, which does not allow to establish causal relationships between the explanatory variables and the response variable. Another limitation is the potential presence of selection bias as the study used a convenient sample mostly composed of women. In addition, the study was conducted with people participating in community groups for people aged 60 or over. These people were regularly exposed to health education activities and participated in social groups, which can provide greater socialization and support to face problems. Therefore, the results of this study may not be extrapolated to older adults in the community in general and to the male population. The use of self-reported measures can leave the results susceptible to the influence of behavioral, cultural and social factors[24].

In addition, although the results of this study demonstrate an association between self-rated health and physical activity, no questionnaire translated and validated for that specific group or equipment was used to measure the level of physical activity and the parameters described in the literature to define whether the individual is physically active or not were not used. As for functional capacity, no translated and validated instrument was used to measure this variable.

Finally, it is important to note that although the question used to measure self-rated health is not validated for the Brazilian population and the older population, it has attracted the attention of researchers in Brazil and in the world as it there is accumulated evidence of its association with mortality. In addition, it is an easy-to-use and low-cost instrument that can be easily understood by the participants[8-10]. These characteristics of the instrument are especially important in the Brazilian context, where 42.3% of the population has less than eight years of study[3], and this figure being higher among older adults. Therefore, despite the lack of validation in the country, this question is considered a robust measure of self-rated health and its use is strongly acceptable in this scenario. However, the question used

in this study had only four response options (poor, fair, good or very good), while other studies used five response options (very poor, poor, fair, good or very good), a fact that makes it difficult to compare the findings of the studies.

Despite the limitations presented, the results have internal validation, as 93.3% of the people enrolled in the community groups were analyzed. The groups were held in different regions of the municipality, with different socioeconomic characteristics. Additionally, the data collection team was extensively trained and calibrated in advance and throughout the research.

CONCLUSION

The research findings add relevant information to the scientific literature as negative self-rating of health was associated with lower household income, physical inactivity and presence of two or more associated diseases. These results can be useful when comparing data from population samples, since they represent a group of active older adults inserted in society, which has been encouraged and recommended to improve the quality of life in this age group. The results also reinforce that self-rated health is a multidimensional construct influenced by individual factors (some modifiable), thus indicating the need for strategies to increase the adoption of healthier habits and behaviors.

CONFLICTS OF INTEREST

There were no conflicts of interest in the development of this study.

FUNDING SOURCES

FAPEMIG (*Fundação de Amparo à Pesquisa do Estado de Minas Gerais* / Minas Gerais State Research Support Foundation), process No. APQ 00133-14.

CNPq (*Conselho Nacional de Desenvolvimento Científico e Tecnológico* / National Council for Scientific and Technological Development), process No. 432314/2016-4.

CONTRIBUTIONS

All the authors contributed to the study conception and design; the acquisition, analysis and interpretation of data; and the writing and/or revision of the manuscript.

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How to cite: Vaz CT, Almeida NAV, Kelmann RG, Queiroz ACC, Barbosa MCA, Silva CLA. Factors associated with self-rated health in older adults from community groups. Rev Bras Promoç Saúde. 2020;33:10328.