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Social inequalities in the self-rated health of the elderly people in the city of São Paulo, Brazil

Desigualdades sociais na autoavaliação de saúde dos idosos da cidade de São Paulo

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ABSTRACT: ***Objective:*** To describe the prevalence of the self-rated poor and very poor health status among elderly people who were not in nursing homes and were living in São Paulo, Brazil, in 2010, and to identify whether the social inequalities previously reported for this condition persist. ***Methods:*** We carried out a cross-sectional study, with a representative sample of 1,344 people aged 60 years or more living in the city, who participated in the SABE Study (Health, Well-Being, and Aging). We applied a questionnaire about sociodemographic characteristics, which included three questions on self-rated health status: a direct question about the current condition, a comparison with the condition of the other people of the same age, and a comparison with oneself a year before. The comparative analysis used Poisson regression models, reporting the prevalence ratio as a measure of association between variables. ***Results:*** Only 7.8% of the elderly individuals reported a negative self-rated health status in 2010, similar proportion to those that consider themselves to be in worse health condition than the other people of the same age (8.7%). However, the prevalence of elderly people that reported worsening in comparison with the previous year was higher, of 29.2%. Regardless of the question used, the prevalence of negative self-rated health was directly associated with worse indicators of income, educational status, and consumer classes. Significant differences between genders, age groups, and skin color categories were also observed. ***Conclusion:*** Differences in the prevalence of self-rated negative health status continue to affect the sociodemographic groups. The knowledge already available about social inequalities in health did not eliminate or attenuate social injustice in this outcome.

Keywords: Self-assessment. Aged. Socioeconomic factors. Income. Educational status. Demographic data.

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RESUMO: ***Objetivo:*** Descrever a prevalência da autoavaliação de saúde ruim e muito ruim em idosos não asilados vivendo na cidade de São Paulo em 2010 e identificar se persistem as desigualdades sociais anteriormente relatadas para esta condição. ***Métodos:*** Foi realizado um estudo transversal, com amostra representativa de 1.344 pessoas com 60 anos ou mais vivendo na cidade, participantes do Estudo SABE (Saúde, Bem-Estar e Envelhecimento). Foi aplicado questionário sobre características sociodemográficas, incluindo três questões de autoavaliação de saúde: uma pergunta direta sobre a condição atual, uma comparação com a condição das demais pessoas da mesma idade, e uma comparação consigo mesmo há um ano. A análise comparativa utilizou modelos de regressão de Poisson, relatando a razão de prevalências como medida de associação entre variáveis. ***Resultados:*** Apenas 7,8% dos idosos relataram autoavaliação negativa de saúde em 2010, proporção análoga à dos que se consideraram em pior condição de saúde que as demais pessoas de mesma idade (8,7%). No entanto, foi mais elevada a prevalência de idosos que relataram piora em relação ao ano anterior: 29,2%. Independentemente da questão utilizada, a prevalência de autoavaliação negativa de saúde associou-se diretamente com piores indicadores de renda, escolaridade e classes de consumo. Também foram observadas diferenças significativas entre os sexos, grupos etários e categorias de cor da pele. ***Conclusão:*** Diferenças na prevalência de autoavaliação negativa de saúde persistem afetando os grupos sociodemográficos. O conhecimento já disponível sobre desigualdades sociais de saúde não propiciou suprimir ou atenuar a injustiça social neste desfecho.

Palavras-chave: Autoavaliação. Idoso. Fatores socioeconômicos. Renda. Escolaridade. Dados demográficos.

INTRODUCTION

The self-rated health assessment is an indicator of general health widely used in Brazil and in the international context. The direct question about the health status is a strategy of simple application in population surveys. In addition to the operational ease for obtaining data, its widespread use has been justified by the expectation that this information effectively reflects the presence of functional limitations, besides anticipating the possible demand for medical care and the mortality in the subsequent period[1-3]. In Brazil, the self-reported health assessment was validated as an indicator of the general health of the elderly people, despite the recognition of its lack of specificity concerning the health problems that were being measured[4].

To identify the presence of socioeconomic differences in health has been a growing priority in public health[5]. For the elderly population, the study of health inequalities has its importance increased by the perception that the accumulation of different chronic health problems causes an almost exponential growth in the spending on health services[6]. DeSalvo et al.[7] found that simple models based on self-rated health and age provided robust estimates of future spending on drugs, hospitalizations, and total health spending.

In Brazil, recent studies have examined the self-rated health of the elderly people, focusing on their socioeconomic determinants. An analysis of the data for elderly people (60 years old or more) in the National Household Sample Survey (PNAD) documented the association between income and self-rated health, showing that it has

remained unchanged over the 10 years of the research (1998–2008)[8]. In fact, two subsequent studies have also found that the association between low income and worse health perception by the elderly people persists[9,10]. The knowledge already obtained about this association does not seem to have been used in attenuating the negative impact of poor socioeconomic condition on the self-rated health assessment.

In the city of São Paulo, the association between income and self-rated health in the elderly people had already been observed in a population-based study, which had a sample referring to the year 2000[11]. In this study, the authors identified the fear of violence and physical inactivity as the factors that mediate this association. These evidences could instruct the planning of specific programs to promote the health of the elderly people, reducing the prevalence of the negative self-assessment or modifying its association with variables of socioeconomic nature, such as income and educational statuses.

In this sense, we tried to describe the perception of health of the elderly people in São Paulo in a more recent period, in order to assess whether the prior knowledge already available was able to attenuate the social inequality in the health perception of the elderly individuals. This study aimed at describing the prevalence of poor and very poor self-rated health from elderly people who were not in nursing homes and lived in São Paulo in 2010 and to identify if the social inequalities previously reported for this condition persist.

METHODS

This study used data from SABE (Health, Welfare, and Aging), a longitudinal study that began in 2000 under the auspices of the Pan American Health Organization (PAHO). The sample of this study consisted of elderly individuals (60 years old or more) who were not in nursing homes and lived in São Paulo, Brazil. The national and international ethical guidelines for research involving human participants were followed; the research protocol was evaluated and approved by the Research Ethics Committee of the School of Public Health at Universidade de São Paulo.

The initial sample was obtained in 2000 using complex design, of multiple stages, and was planned to enable statistical inference for the urban population of 60 years old or more. The primary sampling units were the census sectors of the city, and the households were the secondary sampling units. Of a total of 263 census tracts included in the National Household Sample Survey carried out by the Brazilian Institute of Geography and Statistics (IBGE) in 1995, 72 were randomly selected. The households were also randomly selected, with all individuals aged 60 years or more living in these households being considered eligible for the study, totaling 2,143 participants.

Of the 2,143 participants gathered in 2000, 748 survivors were located, and they agreed to continue participating in the study in 2010. In 2006, 298 new participants aged 60 to 64 years were included to reconstruct the age range of the sample. Of these new participants, 241 survivors were located, and they agreed to participate in 2010. Finally, in 2010,

355 new participants aged from 60 to 64 years were included, to reconstruct again the age range of the sample. With this, the total sample included 2,143 individuals in 2000, 1,413 in 2006 and 1,344 in 2010. The sample weights applied in 2000 were reestimated in 2006 and 2010, in order to allow statistical inferences for the population aged 60 years or more in the municipality. Sample weights were estimated as the inverse of the sampling fraction with an adjustment for the corresponding distribution of the population by sex and age group.

All the participants were interviewed in their own households. Health professionals specifically trained for this purpose applied a detailed questionnaire on characteristics that included sociodemographic aspects, behavior, quality of life, use of health services, and clinical information, besides some physical tests. The SABE study, its methodology, sample design, and questionnaire were described in more detail in other publications[12,13].

This study considers three outcomes related to the quality of life and perception of health of the elderly. The first was the answer to the direct question about how the person evaluates his or her own current health: "Would you say that your health is very good, good, fair, poor, or very poor?" The second outcome involved the comparison between the current health status and the participant's opinion about the health of others of the same age: "Compared to others of your age, would you say that your health is better, equal, or worse?". The third outcome was obtained by comparing the current health status with the condition experienced 12 months prior to the interview: "Comparing your health today with the one from 12 months ago, would you say that now your health is better, the same, or worse than it was then?".

The study of factors associated with these results was carried out only for the sample of 2010 and considered demographic characteristics (sex, age, skin color, and current marital status) and socioeconomic conditions (educational status, income, consumption level, and occupation). The age was stratified into 60 to 64 years, 65 to 74 years, 75 to 84 years, and 85 years or older. Skin color involved the categories used by IBGE: white, brown, black, and yellow; the category for other answers includes "indigenous," "do not know," and "no answer." Current marital status was assessed in a dichotomous way: with spouse (married and cohabiting) and without spouse (unmarried, widowed, and separated).

The educational status was classified by the number of years of formal schooling: up to 3 years of study, corresponding to inadequate educational status; from 4 to 7 years, incomplete elementary education; from 8 to 10 years, complete elementary education and/or incomplete secondary education; and 11 years or more, complete secondary education. The occupation was assessed in a dichotomous way using the answer to the question of whether or not the person was working at the time of the data collection. The income was analyzed in a dichotomous way (receiving or not) and in a categorical way, in number of minimum wages, a national reference for assessment of income, which amounted to 510 Brazilian reais (or 300 US dollars) in the period in which the interviews were conducted. The consumer class was assessed by the possession of items (car, TV, computer, and others) quantified according to a criteria originally proposed by the Brazilian Association of

Advertisers (ABA) and the Brazilian Association of Market Research Institutes (ABIPEME)[14], with subsequent stratification by quartiles.

The association between self-rated health outcomes and the factors of demographic and socioeconomic nature was studied using the prevalence ratio, estimated by Poisson regression analysis[15]. For the construction of models with multiple variables, a technique proposed by Victora et al.[16] was used to integrate the conceptual framework to the regression adjustments. According to this conceptual framework, the demographic characteristics were considered distal in relation to the socioeconomic conditions, and the educational status was considered distal in relation to the other socioeconomic variables. In general, the educational status is obtained in previous periods of the life of the elderly people, and this influences their present condition of income, occupation, and consumption[17]. Thus, in the Poisson regression analysis with multiple variables, the prevalence ratios involving demographic characteristics were adjusted among each other but not for socioeconomic conditions, while the prevalence ratios involving socioeconomic conditions were adjusted for demographic characteristics included in the models and for educational status.

The statistical analysis used the Stata 13.0 2013 software (Stata Corporation, College Station, TX, USA). Specifically, the statistical analysis used the survey module of Stata, which enables us to incorporate in the analysis the characteristics of the complex design of the sample: disproportionate stratification of primary and secondary sampling units and attribution of sampling weights.

RESULTS

The proportion of elderly people with poor or very poor self-rated health was relatively low: 7.8% [95% confidence interval (CI): 6.1–9.4%] of the sample of 2010. This proportion has remained virtually unchanged compared with previous evaluations: 8.8% in 2006 and 8.2% in 2000. Similar data were observed when the question about the assessment of health involved the comparison with other people of the same age. When asked about their perception, only 8.7% (95%CI 6.8–10.7%) of the participants in 2010 informed that their health was worse than the health of the others; a proportion close to what was observed in 2006 (10.0%) and 2000 (11.2%) (Table 1).

However, the negative health perception was about three times higher when the question regarding self-rated health referred to the comparison with oneself in the period of 1 year. In 2010, 29.2% (95%CI 25.9–32.4%) of the elderly participants reported being worse than in the previous year; the proportion was equivalent in 2006 (28.5%) and 2000 (27.4%) (Table 1).

Table 2 describes the distribution of the sample obtained in 2010, according to sociodemographic characteristics. More than one third of the elderly individuals possessed insufficient educational status; two thirds did not work; and less than 10% did not have income. More than half reported they were white (58.3%), and 54% reported living with their spouses.

Tables 3, 4, and 5 summarize the study of association between the three measurements of self-rated health and the sociodemographic factors of interest. The variable "gender" was selected for the three adjusted models, indicating that the proportion of women with health complaints was higher than that of men, regardless of how the perception of health was evaluated. Differences in health complaints between the age groups were significant only for the first variable: with higher prevalence of poor or very poor health reports for people aged over 75 years (Table 3). As for skin color, there was a record of worse condition from elderly people with black skin for the report of worsening compared with the previous year (Table 5). Living with spouse was appointed as protection for only one of the health assessment measurements, but the association lost significance in the adjusted model for other sociodemographic variables (Table 5).

The three self-assessment indicators were associated with educational status, indicating better perception of health for elderly people with more years of study (Tables 3, 4, and 5). The elderly individuals who were still working and receiving income showed significantly lower prevalence of poor or very poor self-rated health. A similar association was observed in comparison with others of the same age.

The income level was inversely associated with the indicators of self-assessment, indicating better perception from elderly participants with higher incomes (Tables 3 and 4). The indicators of income and current work were not associated with the complaint of worse health condition compared with the previous year (Table 5).

Finally, the distribution of participants according to consumer class was inversely associated with the comparison measurements between the current health status and the one

Table 1. Self-rated health status of elderly people living in the community: SABE Study. São Paulo, SP, 2000, 2006, and 2010.

Health perception	2000, % (n = 2,143)	2006, % (n = 1,413)	2010, % (n = 1,344)
Your health is			
Poor or very poor	8.2	8.8	7.8
Regular	45.6	46.2	41.1
Good or very good	46.0	44.4	48.7
DK/NA	0.2	0.6	2.4
Compared with other people of the same age, your health is			
Worse	11.2	10.0	8.7
Equal	20.7	20.1	26.2
Better	58.0	59.2	58.3
DK/NA	10.1	10.7	6.8
Compared with a year ago, your health is			
Worse	27.4	28.5	29.2
Equal	54.5	54.2	51.2
Better	17.7	16.6	17.1
DK/NA	0.4	0.7	2.5

DK/NA: do not know/no answer.

Table 2. Elderly people living in the community: distribution according to demographic and socioeconomic characteristics: SABE Study. São Paulo, SP, 2010.

	% (n = 1,344)
Demographic characteristics	
Gender	
Female	59.9
Male	40.1
Age (years)	
60–64	32.3
65–74	39.6
75–84	21.0
85 or older	7.1
Skin color	
White	58.3
Brown	29.1
Black	6.6
Yellow	3.0
Other replies	3.0
Current marital status	
No spouse	44.5
With spouse	54.0
Socioeconomic conditions	
Educational status (years of study)	
0–3	35.3
4–7	37.0
8–10	8.3
11 or more	19.4
Receiving income	
Yes	90.5
No	9.5
Currently working	
Yes	33.0
No	66.5
Income (minimum wage)	
Less than 1	15.5
From 1 to 2	40.7
From 2 to 3	16.5
3 or more	27.3
Consumer class (points)	
Up to 15	23.8
From 16 to 18	23.5
From 19 to 23	29.4
24 or more	23.3

Table 3. Poor and very poor self-rated health status and associated factors of sociodemographic nature. Poisson regression analysis. Elderly people living in the community: SABE Study. São Paulo, SP, 2010.

Perception that the health is poor or very poor	Unadjusted, PR (95%CI)	Adjusted[a], PR (95%CI)
Demographic characteristics		
Gender		
Female	1.51 (1.03–2.22)	1.43(0.98–2.08)
Male	Reference	Reference
Age (years)		
60–64	Reference	Reference
65–74	1.79 (1.03–3.11)	1.77 (1.02–3.09)
75–84	3.08 (1.80–5.28)	2.98 (1.73–5.13)
85 or older	1.16 (0.48–2.77)	1.13 (0.47–2.69)
Skin color		
White	Reference	
Brown	1.08 (0.75–1.55)	
Black	1.34 (0.65–2.75)	
Yellow	0.20 (0.27–1.51)	
Current marital status		
No spouse	Reference	
With spouse	0.97 (0.66–1.42)	
Socioeconomic conditions		
Educational status (years of study)		
0–3	Reference	Reference
4–7	0.78 (0.53–1.14)	0.83 (0.56–1.22)
8–10	0.49 (0.23–1.03)	0.56 (0.27–1.16)
11 or more	0.30 (0.14–0.62)	0.37 (0.18–0.75)
Receiving income		
Yes	0.59 (0.36–0.97)	0.51 (0.30–0.87)
No	Reference	Reference
Currently working		
Yes	0.29 (0.15–0.56)	0.39 (0.19–0.78)
No	Reference	Reference
Income (MW[b])		
Less than 1	Reference	Reference
From 1 to 2	0.79 (0.50–1.27)	0.63 (0.39–1.02)
From 2 to 3	0.62 (0.36–1.07)	0.50 (0.29–0.87)
3 or more	0.30 (0.15–0.58)	0.37 (0.18–0.74)
Consumer classes (points)[c]		
Up to 15	Reference	
From 16 to 18	0.95 (0.60–1.52)	
From 19 to 23	0.50 (0.32–0.80)	
24 or more	0.68 (0.39–1.18)	

[a]Demographic characteristics adjusted to each other, socioeconomic conditions adjusted for demographic characteristics and education; PR: prevalence ratio; 95%CI: 95% confidence interval; [b]MW: minimum wage – R$ 510 (US$ 300) in the period of data collection, [c]Higher values correspond to greater capacity of consumption.

Table 4. Perception that the health status is worse than that of the other people and associated factors of sociodemographic and socioeconomic nature. Poisson regression analysis. Elderly people living in the community: SABE Study. São Paulo, SP, 2010.

Perception that the health is worse than that of the other people	Unadjusted, PR (95%CI)	Adjusted[a], PR (95%CI)
Demographic characteristics		
Gender		
Female	1.67 (1.15–2.41)	1.67 (1.15–2.41)
Male	Reference	Reference
Age (years)		
60–64	Reference	
65–74	1.36 (0.79–2.33)	
75–84	1.70 (0.98–2.97)	
85 or older	1.20 (0.60–2.38)	
Skin color		
White	Reference	
Brown	1.32 (0.91–1.91)	
Black	0.93 (0.44–1.97)	
Yellow	0.50 (0.12–2.11)	
Current marital status		
No spouse	Reference	
With spouse	0.96 (0.64–1.45)	
Socioeconomic conditions		
Educational status (years of study)		
0–3	Reference	Reference
4–7	0.85 (0.55–1.32)	0.88 (0.57–1.36)
8–10	0.71 (0.24–0.68)	0.49 (0.24–0.98)
11 or more	0.48 (0.29–0.77)	0.53 (0.31–0.91)
Receiving income		
Yes	0.44 (0.29–0.66)	0.46 (0.30–0.72)
No	Reference	Reference
Currently working		
Yes	0.37 (0.22–0.63)	0.45 (0.26–0.77)
No	Reference	Reference
Income (MW[b])		
Less than 1	Reference	Reference
From 1 to 2	0.64 (0.45–0.91)	0.62 (0.43–0.89)
From 2 to 3	0.53 (0.31–0.90)	0.55 (0.32–0.94)
3 or more	0.28 (0.16–0.50)	0.36 (0.20–0.63)
Consumer classes (points)[c]		
Up to 15	Reference	Reference
From 16 to 18	0.85 (0.49–1.30)	0.85 (0.51–1.42)
From 19 to 23	0.42 (0.26–0.68)	0.48 (0.30–0.79)
24 or more	0.47 (0.29–0.77)	0.60 (0.35–1.04)

[a]Demographic characteristics adjusted to each other, socioeconomic conditions adjusted for demographic characteristics and education; PR: prevalence ratio; 95%CI: 95% confidence interval; [b]MW: minimum wage – R$ 510 (US$ 300) in the period of data collection, [c]Higher values correspond to greater capacity of consumption.

Table 5. Perception that the health status is worse compared with the precedent year and associated factors of demographic and socioeconomic nature. Poisson regression analysis. Elderly people living in the community: SABE Study. São Paulo, SP, 2010.

Perception that the health is worse compared with a year ago	Unadjusted, PR (95%CI)	Adjusted[a], PR (95%CI)
Demographic characteristics		
Gender		
Female	1.50 (1.21–1.85)	1.51 (1.23–1.86)
Male	Reference	Reference
Age (years)		
60–64	Reference	
65–74	1.20 (0.90–1.60)	
75–84	1.48 (1.13–1.94)	
85 or older	1.34 (0.92–1.97)	
Skin color		
White	Reference	Reference
Brown	1.16 (0.98–1.37)	1.16 (0.98–1.37)
Black	1.54 (1.14–2.07)	1.58 (1.17–2.13)
Yellow	0.96 (0.45–2.03)	1.02 (0.65–2.29)
Current marital status		
No spouse	Reference	
With spouse	0.81 (0.68–0.96)	
Socioeconomic conditions		
Educational status (years of study)		
0–3	Reference	Reference
4–7	0.71 (0.58–0.88)	0.74 (0.60–0.91)
8–10	0.71 (0.45–1.13)	0.74 (0.48–1.14)
11 or more	0.60 (0.47–0.77)	0.66 (0.52–0.84)
Receiving income		
Yes	0.94 (0.71–1.23)	
No	Reference	
Currently working		
Yes	0.72 (0.57–0.91)	
No	Reference	
Income (MW[b])		
Less than 1	Reference	
From 1 to 2	0.94 (0.76–1.17)	
From 2 to 3	0.92 (0.70–1.23)	
3 or more	0.74 (0.56–0.98)	
Consumer classes (points)[c]		
Up to 15	Reference	Reference
From 16 to 18	0.95 (0.77–1.18)	1.02 (0.82–1.28)
From 19 to 23	0.51 (0.39–0.68)	0.59 (0.44–0.79)
24 or more	0.64 (0.46–0.90)	0.79 (0.56–1.11)

[a]Demographic characteristics adjusted to each other, socioeconomic conditions adjusted for demographic characteristics and education; PR: prevalence ratio; 95%CI: 95% confidence interval; [b]MW: minimum wage – R$ 510 (US$ 300) in the period of data collection, [c]Higher values correspond to greater capacity of consumption.

from the previous year and with the condition of others of the same age. In both situations, the health perception was progressively better for classes with higher consumption capacity (Tables 4 and 5).

DISCUSSION

This study documented the prevalence of elderly people with negative self-rated health assessment in the city of São Paulo. Moreover, the study found that such condition persists, affecting unequally the different sociodemographic strata. These are the main results of this study.

By exploring different ways to evaluate the perception of health of the elderly, this study identified a measure with significantly higher proportion of negative results. We believe that increasing the sensitivity of the self-rated health assessment may present operational advantages to the population research in the health field.

The prevalence of elderly individuals with poor or very poor health perception was relatively low (8.2% in 2010). Differences in the form of measurement, in the scales used, and in the age composition of the participants reduce the interest in comparing this result with other databases. However, it is important to note that relatively low magnitudes were also recorded by major surveys in Brazil and abroad. In the edition of 2006–2007, the National Health and Nutrition Examination Survey (NHANES) showed that only 3.2% of American adults evaluated their health as poor. This figure rises to 16.9% if the adults who rate their health as regular are added to the count[3]. In the European Social Survey (ESS) carried out in 2006, the negative self-evaluation, that is, poor or very poor health, showed a prevalence of 7.5% of European adults[18]. In the National Household Sample Survey carried out in 2008, the prevalence of Brazilian elderly people (65 years or more) with poor or very poor health perception was 13.6%[19].

Despite the proportion of elderly people with negative self-rated health being reduced, the prevalence of self-reported chronic diseases was high in this population. Almost seven of ten survey participants reported taking medication to lower the blood pressure. Almost one of four participants was informed by doctors or nurses that he or she had diabetes. More than a third received a diagnosis of joint disease (arthritis, osteoarthritis, and rheumatism), and almost the same proportion reported having fallen in the previous year[20].

Considering the high prevalence of chronic diseases in the elderly people and remembering the usefulness of the direct question about the health status to anticipate the future demand for health-care services, a strategy to measure with more sensitivity the negative self-rated health could be interesting. Thus, it would be possible to foresee a higher proportion of elderly individuals subject to looking for health care. By including different questions to capture the self-rated health, this study may have provided an important acquisition for health research, because obtaining a higher standard of negative responses may represent increased sensitivity in the strategy of self-rated health assessment.

Regardless of the question used to measure the self assessment, the negative perception of health was more prevalent for groups of worse socioeconomic condition, and this finding was statistically adjusted to the already known fact of the greater propensity to negative self-rated health in women and elderly people with higher age[21,22]. The association between poor socioeconomic conditions and negative self-rated health is widely recognized in the literature and influenced by individual factors and by the social context in which it is inserted, including cultural and psychosocial aspects, housing characteristics, and the physical environment in which one lives[23,24].

The socioeconomic gradient in health exists in both high-income and in low-income countries and has persisted even when there is a better distribution of income[25]. For elderly people in particular, the social inequalities in health reflect differences in conditions experienced throughout life. Some elderly participants can obtain an increase in income and can even be able to modify their formal educational status, but the socioeconomic gradient in health does not reflect only current conditions but the accumulation of advantages and disadvantages that occurred throughout life. In this sense, reducing social inequalities in health would require more than socioeconomic changes; it would require health programs and actions specifically targeted to give an increased provision of resources to the groups with greater needs.

The moderating effect of health care on the socioeconomic gradient in the health conditions of the elderly people has been reported in studies addressing different outcomes[26], including the self-rated health[27]. In this sense, one would expect that the wide recognition of social inequalities in health, in the national and international contexts, could have motivated actions and health programs directed to the promotion of social justice. The socioeconomic gradient of the same outcome (negative self-rated health) had been documented for the same population (elderly people of São Paulo) in the previous period (2000)[11]. Nevertheless, this study found that this unfavorable condition remained unchanged in 2010. This observation should be considered as an eloquent sign of the need for initiatives from the health system to attend the social groups with larger demands.

The main limitation of this study is to have evaluated only self-reported information. The participants were asked about how they assessed their own health condition. This information was not checked by comparisons with medical records and administrative records of health care. This strategy is not free from memory bias. However, a previous study evaluated favorably the validity of measuring self-rated health in the elderly people as a predictive factor for subsequent mortality in the Brazilian context[4].

CONCLUSION

This analysis pointed to the persistence of health inequality among Brazilian elderly people. This study also highlighted the observation that the previous record of sociodemographic inequalities in the prevalence of negative self-rated health was not enough

to prevent a worse outcome to continue affecting, in 2010, the less-educated elderly individuals, those who do not work or do not earn income, and those who were stratified into classes of smaller consumption capacity. The previous recognition that the less-educated elderly individuals and with lower income show a worse perception of health[11] did not show favorable consequences regarding the modification of the profile of health inequalities. In this sense, we reiterate the importance of programmatic actions for promoting health to the poorest socioeconomic strata, in order to encourage the modification of their worse self-reported health.

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