DOI: 10.1590/1980-549720180004.supl.2

ORIGINAL ARTICLE / *ARTIGO ORIGINAL*

Racial inequities and aging: analysis of the 2010 cohort of the Health, Welfare and Aging Study (SABE)

Iniquidades raciais e envelhecimento: análise da coorte 2010 do Estudo Saúde, Bem-Estar e Envelhecimento (SABE)

Alexandre da Silva[I], Tereza Etsuko da Costa Rosa[II], Luís Eduardo Batista[II], Suzana Kalckmann[II], Marília Cristina Prado Louvison[III], Doralice Severo da Cruz Teixeira[IV], Maria Lúcia Lebrão[III]*

ABSTRACT: ***Introduction:*** Understanding racial disparities in Brazil has been very complex and poorly investigated in some population segments, such as the elderly individuals. ***Objective:*** This study aimed to present descriptively a comparative analysis in a racial perspective of sociodemographic profile, health conditions, and health service use by older people in the city of São Paulo. ***Methods:*** This is a cross-sectional analysis of the Health, Welfare and Aging Study (SABE). For this study, 1,345 elderly individuals were considered in the cohort of 2010. Data about the black, brown, and white elders were selected. The data were addressed in three major axes: sociodemographic, health conditions, and health service use. The chosen epidemiological measure of association was the prevalence ratio (PR), as well as the percentage values for expressing differences among the groups. ***Results and conclusion:*** The results showed a more favorable scenario for the aging of the white elderly compared to those of brown or black color, considering sociodemographic indicators, health conditions or use and access to health services.

Keywords: Social inequity. Health inequalities. Ethnicity and health. Color. Aging. Racism.

[I]Postgraduate Program in Public Health, Public Health School, Universidade de São Paulo – São Paulo (SP), Brazil.
[II]Instituto de Saúde, Secretariat of Health in the State of São Paulo – São Paulo (SP), Brazil.
[III]School of Public Health, Universidade de São Paulo – São Paulo (SP), Brazil.
[IV]Municipal Secretariat of Health of São Paulo – São Paulo (SP), Brazil.
*in memoriam.
Corresponding author: Alexandre da Silva. Departamento de Epidemiologia, Faculdade de Saúde Pública, Universidade de São Paulo. Avenida Doutor Arnaldo, 715, 1º andar, Pinheiros, CEP: 01246-904, São Paulo, SP, Brasil. E-mail: alesilva@usp.br
Conflict of interests: nothing to declare – **Financial support:** *Fundo de Amparo à Pesquisa do Estado de São Paulo* (FAPESP), Ministry of Health and Universidade de São Paulo (USP).

RESUMO: ***Introdução:*** Entender as disparidades raciais no Brasil tem sido algo bastante complexo e pouco investigado em alguns segmentos populacionais, como na população idosa. ***Objetivo:*** Objetivou-se apresentar de forma descritiva uma análise comparativa, numa perspectiva racial, do perfil sociodemográfico, das condições de saúde e de uso de serviços de saúde dos idosos da cidade de São Paulo, SP. ***Métodos:*** Trata-se de uma análise transversal do Estudo Saúde, Bem-Estar e Envelhecimento (SABE). Para o presente trabalho, foram considerados 1.345 idosos da coorte de 2010. Selecionaram-se os dados referentes aos idosos de cor preta, parda e branca. Abordaram-se os dados em três eixos essenciais: sociodemográficos, condições de saúde e uso e acesso a serviços de saúde. A medida epidemiológica de associação escolhida foi a razão de prevalência (RP), para expressar as diferenças entre os grupos. ***Resultados e conclusão:*** Os resultados evidenciaram um cenário mais favorável para o envelhecimento dos idosos de cor branca em comparação com aqueles de cor parda ou preta, no tocante aos indicadores sociodemográficos, às condições de saúde ou de uso e ao acesso a serviços de saúde.

Palavras-chave: Iniquidade social. Desigualdade em saúde. Raça e saúde. Cor. Envelhecimento. Racismo.

INTRODUCTION

For researchers of social health determinants[1], not only social exclusion, but also prejudice and discrimination, are factors that reflect on health conditions[2]. In North-American literature[3,4], it is shown that inadequacies regarding the condition of life, social support, employability, access to food, lifestyle and access to health service are strongly associated with racial belonging.

There is no consensus to define the terms ethnicity and race or skin color in the academic world[5]. However, with the inclusion of the item 'color' in the information systems, it was possible to point out that the social spaces occupied by whites, negros (blacks and browns), and indigenous people in society reflect on social indicators: worse schooling indicators, insertion in the worse work positions and with less access to social goods and services[6]. These inequalities contribute with the maintenance of material poverty, restricted political participation, and spatial and social isolation. This process, called racism, is entangled in the social tissue and in the behaviors of the Brazilian society through culture, as Kabengele states[7].

In Brazil, there are only a few population studies approaching the health conditions of elders from a racial perspective. The use of inequity and vulnerability dimensions among the elderly may allow the increased and reflexive reconstruction of health promotion and protection[8].

With these considerations, the objective of this paper was to present a comparative analysis, from a racial perspective, of the sociodemographic profile, the health conditions and the use of health services by the elderly in the city of São Paulo, SP.

METHODS

This is a cross-sectional analysis of the Health, Well-Being and Aging Study (SABE), from 2010. SABE is a population-based cohort study including household interviews that has been

carried out since 2000, collecting data about several aspects of the lives of the non-institutionalized elders living in the city of São Paulo[9,10]. Data collection, conducted by trained interviewers, took place in three moments: 2000, 2006, and 2010, with the reposition, in the last two cohorts, of elders aged from 60 to 64 years old. For this study, 1,345 elders were considered in the 2010 cohort.

The dependent variable of the study was "self-reported skin color"[11], and this analysis used data referring to black, brown, and white elders, according to the following variable:

- sociodemographic indicators: sex (male and female), age (60–64 years old, 65–69 years old, 70–74 years old, 75–79 years old, 80 years old or more), marital status (divorced/widower, married, single), number of living children (none, one or two children, three or more children), sufficient income for daily expenses (yes, no), knows how to read and write a message (yes, no), schooling (in years);
- way of life: lives alone (yes, no), religion (catholic, evangelical, other/none), leaves home (yes, no), invites people over (yes, no), is currently working (yes, no), reasons to work (finances, keep an occupation), and having lived in the rural area for at least five years until the age of 15 (yes, no);
- health conditions: health self-assessment (very good/good, fair, bad/very bad), self-report of diseases – osteoporosis (yes, no), arterial hypertension (yes, no), diabetes (yes, no), stroke (yes, no), cognitive decline (yes, no), psychiatric or nervous problem (yes, no), and depression (yes, no). The geriatric depression scale was used to evaluate depressive symptomatology[12], and for the mini mental state examination[13];
- health behaviors: smoking history (currently smoking, has smoked, never smoked), risk for alcohol dependence – Michigan Alcoholism Screening Test, Geriatric Version (S-MAST-G)[14] – (yes, no) and conditions to care for their own health (usually, once in a while/rarely, never);
- use and access to health services: having an additional health insurance plan (yes, no), amount paid by the health insurance (in Reais (BRL): USD 1 = BRL 3,39), difficulty to use health services (yes, no), having complementary examinations (yes, had them all; no, but they are all scheduled; no, just some), need for urgency care (yes, no), place of emergency care (Unified Health System – SUS, health insurance plan, private).

For the statistical data analysis, bivariate analyses were conducted between the dependent variable "race/skin color" and the independent variables through contingency tables, always considering the values proportional to each racial category. Since this is a complex sample, the Rao-Scott χ^2 test was used for the bivariate analyses of the qualitative variables, and the calculation of the mean and its respective 95% confidence interval (95%CI) was used when the independent variable was quantitative.

To express differences between groups, the epidemiological measurement of the association chosen was the prevalence ratio (PR), together with percentage values. For all of the analyses, the coefficients of sample weight were used, as well as the 5% significance level ($a = 0.05$). The statistical *software* used was Stata (version 11.0).

The project SABE was approved by the Ethics Committee of the Public Health School at *Universidade de São Paulo*, according to protocol number 2,044, in March, 2010.

RESULTS

Of the total 1,345 elders in the 2010 cohort, 1,263 were considered for this analysis. Yellows and indigenous people were excluded. The following was analyzed: 782 (62%) whites, 387 (30.9%) browns, and 94 (7.1%) blacks, who, after the weighting procedures, began to represent the population of 1,244,371 elders, out of whom 771,510 are white, 384,511 are brown, and 88,350 are black.

SOCIODEMOGRAPHIC CHARACTERISTICS

According to Table 1, the fact that the highest proportion of browns is concentrated in the age group between 60 and 60 years old ($p < 0.001$) stands out. About marital status, there were more single people among blacks ($p = 0.050$). Not having living children in 2010 was more common for black older people (10.70%; $p < 0.001$), while whites were those who reported having one or two living children (40.80%; $p < 0.001$). However, when the elders with three or more children were analyzed, a higher proportion was observed among browns and blacks ($p < 0.001$).

In socioeconomic aspects, there was a concentration of browns and blacks ($p < 0.001$) among those who reported not having enough income for daily expenses, which dialogs with schooling data, because these are the same groups that had the highest proportions of illiterate people ($p < 0.001$) and the lowest mean of schooling years ($p < 0.05$). The mean schooling period for blacks (3.90 years; 3.01 – 4.79 95%CI) and browns (4.09 years; 3.52 – 4.66 95%CI) was much lower if compared to the white elders (6.10 years; 5.49 – 6.72 95%CI). The highest proportion of those who did not know how to read or write a message (23.20%; $p < 0.001$) was among the black elders.

WAY OF LIFE

According to Table 2, it was possible to observe the prevalence of evangelicals among browns and blacks, and Catholics ($p < 0.001$) among whites. Concerning the social life of the elders, expressive proportions of black people said, respectively, they never go out to public places (64.80%; $p = 0.005$) and never invite people over (42.10%; $p = 0.018$).

The black (38.60%) and brown elders (38.30%) were those who mentioned working at the time of the survey ($p = 0.01$), even though the reason – the financial need – is the same

in the three groups (p = 0.63). Regarding the previous life in a rural area, the brown elders were those who more often claimed to have lived in such areas for at least five years until they were 15 years old (p = 0.02).

Table 1. Demographic and economic characteristics of elders in the Study Health, Well-being and Aging (SABE Study) according to color, 2010.

Variables	Frequency (%)			Total	Prevalence Ratio			p-value
	Black	Brown	White		Black	Brown	White	
Sex (1,263)								
Male	46.60	39.00	39.20	39.70	1.17	0.98	0.99	0.400
Female	53.40	61.00	60.80	60.30	0.89	1.01	1.01	
Age (1,263) (years)								
60 to 64	26.70	42.30	28.20	32.40	0.82	1.31	0.87	< 0.001
65 to 69	24.80	27.00	19.10	22.00	1.13	1.23	0.87	
70 to 74	16.60	13.60	20.00	17.80	0.93	0.76	1.12	
75 to 79	15.30	6.60	15.40	12.70	1.20	0.52	1.21	
80 and older	16.60	10.40	17.20	15.10	1.10	0.69	1.14	
Marital status (1,247)								
Divorced/ widower	43.20	40.70	42.10	41.70	1.04	0.98	1.01	0.050
Married	47.90	55.60	55.30	54.90	0.87	1.01	1.01	
Single	9.00	3.70	2.70	3.40	2.65	1.09	0.79	
Number of living children (1,242)								
None	10.70	3.30	4.20	4.40	2.43	0.75	0.95	< 0.001
1 or 2	29.20	29.30	40.80	36.40	0.80	0.80	1.12	
3 or more	60.10	67.40	55.00	59.20	1.01	1.14	0.93	
Sufficient income for daily expenses (1,233)								
Yes	49.70	48.90	61.40	56.70	0.88	0.86	1.08	< 0.001
No	50.30	51.10	38.60	43.30	1.16	1.18	0.89	
Reads and writes messages (1,259)								
Yes	76.80	81.10	90.70	86.80	0.88	0.93	1.04	< 0.001
No	23.20	18.90	9.30	13.20	1.76	1.43	0.70	
Schooling in years (mean; 95%CI) (1,245)	3.90 (3.01; 4.79)	4.09 (3.52; 4.66)	6.10 (5.49; 6.72)	5.31 (4.77; 5.85)				

CI: confidence interval.

HEALTH CONDITIONS: SELF-REPORT AND SELF-EVALUATION OF HEALTH

As in Table 3, most elders assessed their own health as very good or good (50.30%, in average), and this proportion decreases considering the black elderly (41.80%), even though without statistical significance (p = 0.38). Osteoporosis was one of the chronic diseases with

Table 2. Characteristics about the way of life of the elders in the study Health, Well-Being and Aging (SABE Study) according to color, 2010.

Variables	Frequency (%)			Total	Prevalence Ratio			p-value
	Black	Brown	White		Black	Brown	White	
Lives alone (1,263)								
Yes	18.90	15.40	15.30	15.60	1.21	0.99	0.98	0.720
Religion (1,256)								
Catholic	61.60	59.80	64.80	63.00	0.98	0.95	1.03	0.001
Evangelical	32.90	29.90	20.40	24.20	1.36	1.24	0.84	
Other or none	5.50	10.30	14.80	12.80	0.43	0.80	1.16	
Leaves the house (867)								
Frequently	6.00	12.10	17.60	15.30	0.39	0.79	1.15	0.005
Sometimes/rarely	29.30	38.10	41.50	39.80	0.74	0.96	1.04	
Never	64.80	49.80	40.90	44.90	1.44	1.11	0.91	
Invites people over (868)								
Frequently	30.20	41.30	40.10	39.70	0.76	1.04	1.01	0.018
Sometimes/rarely	27.70	35.90	38.90	37.30	0.74	0.96	1.04	
Never	42.10	22.70	21.00	23.00	1.83	0.99	0.91	
Works (1,256)								
Yes	38.60	38.30	29.50	32.80	1.18	1.17	0.90	0.010
No	61.40	61.70	70.50	67.20	0.91	0.92	1.05	
Reasons to work (344)								
Financial needs	65.50	72.50	67.70	69.30	0.95	1.05	0.98	0.630
Keeping busy	34.50	27.50	32.30	30.70	1.12	0.90	1.05	
Lived in the countryside for five years or more (341)								
Yes	44.30	59.30	41.50	49.00	0.90	1.21	0.85	0.020
No	55.70	40.70	58.50	51.00	1.09	0.80	1.15	

lower prevalence, despite being more remarkable among white elders (21%), if compared to browns (16.20%) and blacks (14.20%), also without statistical significance ($p = 0.053$). Other conditions are more prevalent among black elders: arterial hypertension (83%); $p = 0.003$), diabetes (40.80%; $p = 0.005$), and stroke (18.7%; $p < 0.001$). The presence of cognitive deficit was identified in higher proportions among blacks (19.70%) and browns (12.60%) in comparison

Table 3. Self-report and self-evaluation of health and other health conditions among the elderly in the study Health, Well-being and Aging (SABE Study), 2010.

Variables	Frequency (%)			Total	Prevalence Ratio			p-value
	Black	Brown	White		Black	Brown	White	
Self-report of health (1,224)								
Very good/good	41.80	48.30	52.30	50.30	0.83	0.96	1.04	0.380
Fair	48.10	43.60	40.20	41.80	1.15	1.04	0.96	
Bad/very bad	10.00	8.10	7.50	7.90	1.27	1.03	0.95	
Osteoporosis (1,252)								
Yes	14.20	16.20	21.00	19.10	0.74	0.85	1.10	0.053
Arterial hypertension (1,262)								
Yes	83.00	67.30	64.40	66.60	1.25	1.01	0.97	0.003
Diabetes (1,262)								
Yes	40.80	22.80	23.80	24.60	1.66	0.93	0.97	0.005
Stroke (1,260)								
Yes	18.70	7.20	6.10	7.30	2.56	0.99	0.84	< 0.001
Self-assessment of memory (1.232)								
Excellent/very good	10.80	12.50	17.30	15.40	0.70	0.81	1.12	0.034
Good	51.70	44.90	48.70	47.80	1.08	0.94	1.02	
Fair/bad	37.40	42.50	34.00	36.90	1.01	1.15	0.92	
Cognitive deficit (MEEM) (1,263)								
Yes	19.70	12.60	7.20	9.30	2.12	1.35	0.77	< 0.001
Psychiatric or nervous problem (1,261)								
Yes	4.10	12.50	10.50	10.70	0.38	1.17	0.98	0.049
Depression (1.259)								
Yes	13.80	13.40	20.40	17.80	0.78	0.75	1.15	0.013

MEEM: mini mental state examination (MMSE).

to whites (7.10%; $p < 0.001$). It is worth to mention, however, that self-reported psychiatric problems and depression, respectively, were less prevalent among blacks – 4.10% ($p = 0.049$) and 13.80% ($p = 0.013$) – in comparison to whites (10.50% and 20.40%).

CHARACTERISTICS OF HEALTH BEHAVIOR

According to Table 4, regarding health behaviors, the proportion of black elders (52.30%; $p = 0.007$) who stopped smoking was remarkable, whereas most browns (11%) and blacks (12%) claimed to never care for their own health, when compared to whites (6.30%; $p = 0.03$). The probable risk for alcohol dependence was higher for browns (22.70%) and blacks (10.70%), when compared to whites (6.60%; $p = 0.001$).

USE AND ACCESS TO HEALTH SERVICES

According to Table 5, fewer black (25.70%) and brown elders (30.20%) had private health insurance plans ($p < 0.001$), and they paid the lowest mean values for these plans (blacks: R$ 119.84; browns: R$ 172.33; whites: R$ 314.29). As to the difficulty of using health services, there was no significant difference between racial groups, even though the following

Table 4. Characteristics of health behavior of the elderly in the study Health, Well-being and Aging (SABE Study), 2010.

Variables	Frequency (%)			Total	Prevalence Ratio			p-value
	Black	Brown	White		Black	Brown	White	
Smoking in life (1,261)								
Currently smoking	9.40	14.20	11.60	12.20	0.77	1.16	0.95	0.007
Has smoked	52.30	39.60	33.60	36.80	1.42	1.08	0.91	
Never smoked	38.30	46.10	54.80	51.00	0.75	0.90	1.07	
Risk for alcohol dependence (362)								
No	89.30	77.30	93.40	89.00	1.00	0.87	1.05	0.001
Yes	10.70	22.70	6.60	11.00	0.97	2.06	0.60	
Care for their own health (n = 867)								
Often	77.20	78.70	86.20	83.60	0.92	0.94	1.03	0.033
Once in a while/ rarely	10.80	10.30	7.50	8.50	1.27	1.21	0.88	
Never	12.00	11.00	6.30	7.90	1.52	1.39	0.80	

stands out: 25% of the elders report difficulty to access them, and a significant number of white people have all of the additional examinations requested ($p = 0.011$).

When asked about undergoing an urgency service, browns (25%) were the ones who used this type of health service more often, whereas blacks were the ones that used it the least (16.30%), even if without statistical significance ($p = 0.13$). Regarding the place of urgency care, 48% of whites have a health insurance plan, whereas approximately 80% of the blacks and browns use SUS ($p < 0.001$).

Table 5. Characteristics of the use of health services and access by elderly in the study Health, Well-being and Aging (SABE Study), 2010.

Variables	Frequency (%)			Total	Prevalence Ratio			p-value
	Black	Brown	White		Black	Brown	White	
Insurance health plan besides SUS (1,263)								
Yes	25.70	30.20	53.10	44.10	0.58	0.68	1.20	< 0.001
No	74.30	69.80	46.90	55.90	1.33	1.25	0.84	
Mean price paid for insurance health plan (R$) (95%CI) (561)	119.84 (65.96; 173.72)	172.33 (116.75; 227.92)	314.29 (276.95; 351.63)	275.20 (242.83; 309.57)				
Difficulty to use health services (1,255)								
No	75.00	75.00	74.00	74.40	1.01	1.01	0.99	0.91
Did additional tests (638)								
Yes, did them all	61.80	64.80	77.30	72.50	0.85	0.89	1.07	0.011
No, but they are scheduled	25.60	22.70	17.10	19.40	1.32	1.17	0.88	
No or just some	12.50	12.50	5.60	8.10	1.54	1.54	0.69	
Need for urgency care (1,263)								
Yes	16.30	25.00	20.10	21.30	0.77	1.17	0.94	0.13
No	83.70	75.00	79.90	78.70	1.06	0.95	1.02	
Place of urgency/emergency care (289)								
SUS	80.30	81.00	49.20	62.30	1.29	1.30	0.79	< 0.001
Health insurance plan	19.70	18.50	48.00	35.80	0.55	0.52	1.34	
Private	0.00	0.60	2.80	1.80	0.00	0.33	1.56	

SUS: Unified Health System; CI: confidence interval.

DISCUSSION

The results analyzed here, confirming the first hypothesis, showed a scenario that is more favorable to aging among white elders in comparison to browns or blacks when it comes to sociodemographic indicators of health conditions and use and access to health services.

The prevalence of white people was remarkable, especially among the older participants, as well as the important reduction of browns in this age group. In the context of São Paulo, except for indigenous people, indicators such as the lower mean age of death, lower aging index, and higher mean of potential lost living years in the group of brown people[15,16] clearly express the lower life expectancy in this racial group. Nationally, Oliveira et al., based on the National Household Sample Survey (PNAD), 2008[8], reinforce these findings.

Regarding sex, despite the expected existence of more women in all racial groups, in the black group the exceeding number of women in relation to that of men is lower than in other racial groups. This finding is in agreement with the data from IBGE, which already indicated, in the population pyramid, the same tendency, especially in the older age groups[17].

Considering marital status, the proportion of single black elders was clear – almost three times higher than the number of white and brown people. The condition of being single, allied to the highest proportion of people without children, may indicate a situation of vulnerability when it comes to the network of social support. This situation has also been observed in the United States, where black elders, compared to whites, reported living alone and having the need for emotional support[18]. It seems that the worst levels of social support (frequency of contacts, diversity of contacts, and help received and provided) are experienced by single elders. The explanation for this situation is that children are essential in providing support to parents at older ages, and single elders are most likely the ones who do not have children, thus having a disadvantage[19]. The way of life of black elders reinforces this unfavorable configuration, since they present the highest proportions of elders who live alone, who never invite people over and who never go out to public places.

On the other hand, in this study, the relevance of religion in the old age, because of the high proportion of those who mentioned having a religion, seems to consider the church as an important source of informal social support. The church provides spaces of socialization and mutual support, such as groups of prayer, volunteer work, charities, and other situations that promote groups. Other analyses in the context of SABE show that the importance attributed to religion is higher among those who live alone, in comparison to people who live with others, and that the elders reported having friendship connections formed in the religious corporation[20].

Regarding the economic situation, black and brown elders were, proportionally, those who mentioned not having enough income for their daily expenses and the ones who worked the most at the tie. Worse schooling levels were found among blacks and browns, and they presented the highest proportions when it came to not knowing how to read/write a message, showing illiteracy, and the lowest mean values of schooling years. Both the results related to income and those of schooling are consistent in the entire national territory[8].

Therefore, both the situation of the need of keeping working for economic reasons until older ages and the worse schooling may define a condition that has been considered for years as the main reason for inequalities in the health field.

Rural life in the first 15 years of age, and for at least five years, was more common among browns. Several authors have established that these conditions, called "previous"[21], generate disadvantages for individuals living in rural areas or the suburbs of major urban centers, where health services and sanitary conditions are supposedly unfavorable if compared to the central urban regions. So, it is important to analyze if, among the brown people from São Paulo, the unfavorable conditions experienced in the rural zones in the earlier days could also determine worse life conditions maintained throughout the years in the city of São Paulo. This also leads to lower life expectancy in this racial group.

The worse health pattern of black and brown elders observed in this study is mainly related to the high prevalence of arterial hypertension, diabetes, and stroke. Cerebrovascular diseases, diabetes mellitus, and hypertension have been pointed out as the most important causes of mortality among black people in Brazil[22] and in the United States[18]. Among Brazilians, cerebrovascular diseases were mostly associated with poverty in early stages of life, and among North-Americans this type of condition was more prevalent among black people because of the constant situations of underdiagnosis and undertreatment to which they have been submitted[23].

Mental health issues are another aspect of health conditions, in which black and brown populations are negatively different from the white population. Among blacks and browns, higher proportions of cognitive impairment were observed and assessed by a screening scale. Studies in this field in several countries suggest that the association between poverty and mental disorders is universal, regardless of the level of development in the country[23]. These investigations state that the association of income distribution with homicides, violent crimes, and deaths related to alcohol consumption reinforce the conception that income inequalities also have psychosocial effects.

On the contrary, an unexpected result was mentioned regarding the prevalence of depression. It was significantly higher among white elders and lower among negros elders. Even though it is necessary to conduct a more careful analysis, such results seem to be more consistent with the propositions of Barros et al., who debate the matter of underdiagnosis and undertreatment provided to black elders[24].

The literature analyzed did not show Brazilian studies carried out to explain ethnical and racial inequalities in terms of health, even though several indicators show significant variations in mortality and morbidity rates between racial groups[22]. Likewise, there are no explanations for some unfavorable behavioral characteristics that are more frequently observed among blacks and browns, such as smoking and alcohol dependence. However, with the clear association of these unfavorable behavioral characteristics and others, like the lack of care with health among groups of black and brown elders, it apparently is not difficult to suggest these racial categories as being predictors of worse health indicators.

Regarding the use and access to health services, it was possible to observe the unfavorable condition of black and brown people in comparison to white people, concerning the use of supplementary health, since the former reported using health insurance plans less; when they have it, they pay lower prices. It is interesting to notice that despite this visible difference in the type of public or private health service used by negro and white people, there are no differences between racial groups regarding difficulties to access health services. However, it is important to mention that for 25% of the elders, in all racial groups, it is still difficult to access health services, both public and private.

Another remarkable aspect was the fact that there was no difference between racial groups regarding the access to the request of additional examinations and medication (data not shown in tables). However, there is the hypothesis that the difference lies on the time spent between the request of the examination and its performance, since a significant higher number of white people claimed to have had all of the requested examinations, unlike blacks and browns, who declared only having scheduled the examinations or only some of them.

On the one hand, it is possible to conclude that SUS has ensured access to health services in a relatively adequate way. On the other, mortality rates show a higher proportion of early deaths among blacks and browns, which points out to the need of studies that can qualify the services in order to understand the possible inequalities that may be occurring in the health services of SUS. A related study was conducted in the United States and identified that inconclusive diagnostic conditions, incomplete treatment and lack of control of factors associated with the occurrence of stroke were common for black people, and identified the lack of access to health services as one of the causes for it[23].

This paper has worrisome results regarding inequalities between the racial segments that on until the old age. Further studies can measure and help to create strategies to eliminate/ease changeable factors such as schooling, income, and diseases. Interventions focused on the search for equality can be beneficial for adjusting services that compensate the main conditions of vulnerability in these racial groups.

To conclude, it is necessary to point to the main limitation of the study, which is the fact that it was not designed to analyze the variable race/color. There was also a probable selection bias that occurred during the development of field work, causing possible relative sampling error in racial groups, because in the general population there are more white people than browns and blacks, proportionally[17], than in the study sample. The hypothesis would be that white elders had fewer chances of being interviewed for living in condominiums, which usually makes it difficult for interviewers. On the other hand, brown and black people had more chances of being interviewed because their households are concentrated in areas where the access to interviewers in general is easier, so, there were more interviews with browns and blacks in comparison to whites. Still, comparative analyses with findings from other studies identified many consistent elements. Therefore, this study is favorable regarding its validity.

CONCLUSION

The inequalities found between racial categories pointed to systematic situations of disadvantage for negro elders, and especially for black elders. The context of this article suggested conditions of inequality, which, throughout life, generated worse life conditions for black elders that began very early, maybe in the adult phase or even childhood, but had a negative effect on their behaviors, health conditions, access to goods and health services and their use. Some of the health conditions, like diseases that are more prevalent among black and brown people, are not explained exclusively by biological factors, and would require a line of care and effectiveness to reach all, without distinction.

ACKNOLEDGMENTS

We would like to thank the observations of professor Jair Lício Ferreira Santos, which were a major contribution to improve the manuscript.

REFERENCES

1. Buss PM, Pellegrini Filho A. A saúde e seus determinantes sociais. Physis Rev Saúde Coletiva 2007; 17(1): 77-93.
2. Braveman P, Egerter S, Williams DR. The social determinants of health: coming of age. Annu Rev Public Health 2011; 32: 381-98. DOI: 10.1146/annurev-publhealth-031210-101218
3. United States of America. National Center for Health Statistics (NCHS). Healthy people 2010: final review. Washington, D.C.: U.S. Government Printing Office Washington; 2012.
4. Andresen EM, Miller DK. The future (history) of socioeconomic measurement and implications for improving health outcomes among African Americans. Journals Gerontol Ser A Biol Sci Med Sci 2005; 60(10): 1345-50.
5. Santos GA, Lopes A, Neri AL. Escolaridade, raça e etnia: elementos de exclusão social de idosos. In: Neri AL, editor. Idosos no Brasil: vivências, desafios e expectativas na terceira idade. São Paulo: Edições SESC São Paulo; 2007. p. 288.
6. Paixão M, Rossetto I, Montovanele F, Carvano LM, editors. Relatório anual das desigualdades raciais no Brasil; 2009-2010. Constituição cidadã, seguridade social e seus efeitos sobre as assimetrias de cor ou raça. Rio de Janeiro: Garamond; 2010.
7. Kabengele M. "O racismo à brasileira". Ata da 17.ª Reunião Especial da Assembleia Legislativa de Minas Gerais. 2002. [Internet] Disponível em: http://www.almg.gov.br/opencms/export/sites/default/consulte/arquivo_diario_legislativo/pdfs/2002/06/L20020615.pdf (Acessado em: 14 de outubro de 2016).
8. Oliveira BLCA, Thomaz EBAF, Silva RA. Associação da cor/raça aos indicadores de saúde para idosos no Brasil: um estudo baseado na Pesquisa Nacional por Amostra de Domicílios (2008). Cad Saúde Pública 2014; 30(7): 1438-52.
9. Lebrão ML, Duarte YAO. SABE – Saúde, Bem-Estar e Envelhecimento – o Projeto SABE no município de São Paulo: uma abordagem inicial. Brasília: Athallaia Gráfica; 2003.
10. Lebrão ML, Laurenti R. Saúde, Bem-Estar e Envelhecimento : o estudo SABE no município de São Paulo. Rev Bras Epidemiol 2005; 8(2): 127-41.
11. Osorio RG. O sistema classificatório de "cor ou raça" do IBGE. IPEA 2003: 53.
12. Sheikh JI, Yesavage JA. Geriatric depression scale (GDS): recent evidence and development of a shorter version. Clin Gerontol 1986; 5: 165-73.
13. Folstein MF, Folstein SE, McHugh PR. "Mini-mental state": a practical method for grading the cognitive state for the clinician. J Psychiatr Res 1975; 12(3): 189-98.

14. Kano MY, Santos MA, Pillon SC. Use of alcohol in the elderly: transcultural validation of the Michigan Alcoholism Screening Test – Geriatric Version (MAST-G). Rev da Esc Enferm da USP 2014; 48(4): 649-56 [Internet]. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342014000400649&lng=pt&nrm=iso&tlng=en (Acessado em 11 de novembro de 2015).
15. Galleguillos T, Neves H, Lira M, Nazário CL, Castro IEN, Freitas M, et al. Aspectos da questão étnico-racial e saúde no município de *São Paulo*: Boletim CEInfo Análise. São Paulo; 2015 [Internet]. Disponível em: http://www.prefeitura.sp.gov.br/cidade/secretarias/upload/saude/arquivos/publicacoes/Boletim_CEInfo_Analise_12.pdf (Acessado em: 14 de outubro de 2016).
16. Instituto Brasileiro de Geografia e Estatística (IBGE). Censo 2000. 2000 [Internet]. Disponível em: http://www.ibge.gov.br/home/estatistica/populacao/condicaodevida/indicadoresminimos/ (Acessado em: 14 de outubro de 2013).
17. Instituto Brasileiro de Geografia e Estatística (IBGE). Síntese de indicadores sociais: uma análise das condições de vida da população brasileira. Rio de Janeiro; 2013 [Internet]. Disponível em: http://biblioteca.ibge.gov.br/visualizacao/livros/liv66777.pdf (Acessado em: 14 de outubro de 2016).
18. Mehta KM, Simonsick AEM, Rooks R, Newman AB, Pope SK, Rubin SM, et al. Black and white differences in cognitive function test scores : what explains the difference ? J Am Geriatr Soc 2004; 52(12): 2120-7.
19. Rosa TEC, Benício MHD, Alves MCGP, Lebrão ML. Aspectos estruturais e funcionais do apoio social de idosos do município de São Paulo, Brasil. Cad Saúde Pública 2007; 23(12): 2982-92.
20. Duarte YAO, Lebrão ML, Tuono VL, Laurenti R. Religiosidade e envelhecimento: uma análise do perfil de idosos do município de São Paulo. Saúde Coletiva 2008; 5(24): 173-7.
21. Nuru-Jeter AM, Thorpe RJ, Fuller-Thomson E. Black-white differences in self-reported disability outcomes in the U.S.: early childhood to older adulthood. Public Health Rep 2011; 126(6): 834-43.
22. Chor D, Lima CRDA. Aspectos epidemiológicos das desigualdades raciais em saúde no Brasil. Cad Saúde Pública 2005; 21(5): 1586-94. DOI: 10.1590/S0102-311X2005000500033
23. Gutierrez J, Williams OA. A decade of racial and ethnic stroke disparities in the United States. Neurology 2014; 82(12): 1080-2.
24. Barros S, Batista LE, Dellosi ME, Escuder MML. Censo psicossocial dos moradores em hospitais psiquiátricos do estado de São Paulo: um olhar sob a perspectiva racial. Saúde e Soc 2014; 23(4): 1235-47.

Received on: 08/27/2016
Final version presented on: 09/26/2016
Accepted on: 12/22/2016