

Sociodemographic, behavioral, and health factors associated with positive self-perceived health of long-lived elderly residents in Florianópolis, Santa Catarina, Brazil

Fatores sociodemográficos, comportamentais e de saúde associados à autopercepção de saúde positiva de idosos longevos residentes em Florianópolis, Santa Catarina

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ABSTRACT: The objective of this study was to identify the factors associated with positive self-perceived health of long-lived elderly (80+) individuals. This cross-sectional study was conducted in the city of Florianópolis, Santa Catarina, Brazil, and included 239 elderly participants from the EpiFloripa Ageing Project. We used collection instruments to verify sociodemographic and economic data, self-reported health status, falls, and lifestyle. Then, we identified factors associated with positive self-perceived health using a Poisson regression adjusted for sex. We found that a positive self-reported health status was more prevalent among the long-lived elderly who were not depressed (PR = 0.49), and among those who consumed alcohol (PR = 1.99). Understanding which variables may interfere in the self-perceived health of the long-lived elderly can result in better health options for this population, mainly, new methods to prevent depression. Additionally, this information can help reduce costs associated with hospitalizations, medications and health treatments, all of which are very common among the long-lived elderly.

Keywords: Elderly people aged 80 and older. Self-assessment. Health. Comorbidity. Life style. Treatment.

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RESUMO: O objetivo deste estudo foi verificar os fatores associados à autopercepção de saúde positiva de idosos longevos (80+). Estudo transversal conduzido no município de Florianópolis, Santa Catarina, Brasil, com 239 idosos participantes do EpiFloripa Idoso. Foram aplicados instrumentos de coleta para verificar dados sociodemográficos e econômicos, autorrelato do estado de saúde, quedas e estilo de vida. Para identificar os fatores associados à autopercepção de saúde positiva, utilizou-se regressão de Poisson ajustada por sexo. A autopercepção de saúde positiva foi mais prevalente nos idosos longevos sem a presença de depressão (RP = 0,49) e que faziam consumo de álcool (RP = 1,99). Compreender quais variáveis podem interferir na autopercepção de saúde de idosos longevos auxilia em melhores ações de saúde para essa população, principalmente para evitar depressão, além de reduzir custos com internações, medicamentos e tratamentos de saúde, muito frequentes em idosos longevos.

Palavras-chave: Idosos de 80 anos ou mais. Autoavaliação. Saúde. Comorbidade. Estilo de vida. Tratamento.

INTRODUCTION

The age group of people 80 years old or older (long-lived elderly people) is increasing the most in the world. Projections from the World Health Organization¹ show that this population will surpass 379 million in 2050. In Brazil, this group is also growing. In 2010, there were around 3 million (1.1% of the total Brazilian population), with projections reaching 14 million in 2040, corresponding to an increase of 466.6%. It is estimated that approximately 2.6% of these elderly Brazilians live in Santa Catarina and about 0.3% of them live in the capital city of Florianópolis².

Long-lived elderly people have distinct characteristics, such as a higher prevalence of disabilities and diseases, mainly cardiovascular diseases, stroke, arthritis, dementia and depression². These characteristics give rise to concerns for the economy, health and social welfare of society, due to the high cost of treating and preventing the diseases common to this age group. Challenges arise with regard to the implementation of public policies and improvements in health promotion. Furthermore, there is a need for greater opportunities for these people, so that they can maximize their participation within society^{1,2}.

In addition, advancing age may worsen self-perceived health¹. Pinquart³ explains that this perception of poorer health among the long-lived elderly, compared to younger people, is due to the increase in the number and severity of health problems among the elderly. Moschny et al.⁴, when accompanying 1,937 elderly Germans (aged between 72 and 93 years old) for 7 years, showed that people aged 80 years old and over perceived their health as worse in comparison to younger people.

Positive self-perceived health is a good indicator of one's own health, as it predicts one's survival⁵. It is related to good physical, cognitive and emotional health, as well as to a sense of well-being and satisfaction with life^{6,7}.

Self-perceived health is related to some important components of elderly health, such as socioeconomic aspects⁸, physical activity⁹, physical capacity⁵⁻⁹, morbidities⁵⁻¹⁰ and mortality^{9,11,12}.

However, none of these aspects are derived from studies with long-lived elderly people, thus highlighting the need for this age group to be investigated³. Furthermore, most studies on this subject address negative self-perception of health⁶.

This research is justified by the differentiated population being investigated (long-lived elderly), because they perceived their health to be worse than other age groups, and also because understanding the issues involved in the positive self-perceived health of the elderly can assist in the implementation of better health policies and measures for this population. as well as be an important indicator for the general health surveillance of the elderly¹³. The objective of this study was to verify the factors associated with the positive self-perceived health of long-lived elderly in Florianópolis, Santa Catarina.

METHODS

TYPE OF STUDY

A cross-sectional, population-based household survey conducted in the city of Florianópolis, Santa Catarina, Brazil, with a population of elderly people of both sexes, aged 80 years old and over.

POPULATION AND SAMPLE

The EpiFloripa Idoso¹⁴ study occurred in 2009 and 2010, in Florianópolis, and aimed to study the health conditions of the elderly population (60 years and older) of both sexes, living in the urban area of the municipality.

In order to calculate the sample size, the following criteria were considered: the expected prevalence (50%), an error of 4 percentage points, a 95% confidence interval (95%CI), a design for samples by clusters (= 2), an additional 20% to account for predicted losses, and 15% for associated studies. Furthermore, the size of the elderly population of 60 years or older was considered. Finally, a minimum value of 1,599 interviews was reached. Due to the availability of funding, the sample was expanded to include 1,911 elderly people.

The sample selection process was carried out using two-stage clusters, with the first stage including 420 census tracts (census units of the Brazilian Institute of Geography and Statistics - *Instituto Brasileiro de Geografia e Estatística* — IBGE) in Florianópolis. These sectors consist of 300 to 350 households each, and the households were the units of the second stage. It was estimated that 20 interviews were carried out per census tract and, due to the availability of financial resources, the number of elderly people interviewed per sector increased to 23, in order to increase the variability of the sample. The census tracts were stratified in ascending order according to the average monthly income of the head of the family (R \$ 314.76 to R \$ 5,057.77) and were later randomly selected, along with the

households. Thus, 1,911 eligible elderly people were found. The study's response rate was 89.1%, with a final sample of 1,702 elderly people interviewed. Interviews were considered to be incomplete after four attempts of contacting the interviewee or after the interviewee chose not to respond to the questionnaire.

The study sample was representative of the population aged 60 years old or over residing in Florianópolis. The age group of 80 years old or over in the study (239/1,705 elderly people or 14% of the sample) corresponded to the same percentage of elderly individuals that were 80 years old or over in the target population identified by the 2010 IBGE Census (6.784/48.423 or 14% of the target population).

INSTRUMENTS AND DATA COLLECTION

Data collection was performed using a standardized and pre-tested instrument applied in the form of face-to-face interviews using a Personal Digital Assistant (PDA), which is a small sized computer with a large computational capacity. It served as an agenda and as an elementary office computer system, and it was able to connect to a personal computer and a wireless computer network for internet access.

Female interviewers who had a high school diploma and who were properly trained carried out the interviews. The decision to have only female interviewers was made during the methodological planning of the study. It was considered that women tend to be better received by the interviewees. Furthermore, few questions used in the study could have suffered information bias because the interviewers were women.

Every week, data consistency and quality control was verified by applying a reduced form of the questionnaire over the phone in approximately 10% of the randomly selected interviewees.

The self-perceived health variable was verified by means of the question "In general, would you say that your health is: very good, good, fair, bad or very bad?"¹⁵. These responses were categorized as positive ("very good" and "good") and negative ("fair", "bad" and "very bad").

The covariates studied were:

1. sociodemographic variables: age (in years); sex (male, female); marital status (single, married/together, separated/divorced, widower); housing (alone, accompanied); caregiver (no, yes); schooling (no formal education, incomplete elementary education, elementary education, high school education, higher education); skin color (white, black/black with light skin/yellow); currently works (no, yes), which was verified by the question "Do you currently have any paid work?"; and income in minimum wages (less than 1, 1 to 3, 4 to 6, > 6, with the minimum wage in 2009 being R\$ 465.00, and in 2010, R\$ 510.00);
2. health variables: cognitive decline as evaluated by the Mini Mental State Examination (MMSE) validated in Brazil by Bertolucci et al.¹⁶ - MMSE is the most often used cognitive screening scale in the world, and it ranges from 0 to 30 points; the

- elderly individual's classification was given based on their level of schooling, where elderly people that probably did not have a cognitive deficit received values greater or equal to 19/20 points (elderly individuals with no formal schooling) and greater or equal to 23/24 points (elderly individuals with a formal education); and elderly people with a probable cognitive deficit had lower values than those mentioned¹⁷; spinal disease (no, yes); arthritis and/or rheumatism (no, yes); cancer (no, yes); diabetes (no, yes); bronchitis and/or asthma (no, yes); systemic arterial hypertension (no, yes); cardiovascular diseases (no, yes); depression (no, yes); stroke (no, yes); stomach ulcer (no, yes); urinary incontinence (no, yes); and use of medications (no, yes);
3. behavioral variables: tobacco use (no, smoked and stopped, currently smokes); and alcohol use (no, moderate/high), which was evaluated by the Alcohol Use Disorders Identification Test (AUDIT)¹⁸, through the first three questions of the instrument that refer to the quantity and frequency of regular or occasional alcohol use¹⁹. This instrument is currently one of the most widely used measures in the world to identify groups at risk, and to track the misuse of alcohol in clinical samples and in the general population²⁰. Elderly people who did not consume alcohol were considered to not be drinking alcohol; moderate use was considered to be the consumption of one dose or less at any frequency; and high alcohol consumption was considered to be an intake of five doses or more, or two or more doses taken normally when drinking. Due to the small size of the sample, the categories were grouped into alcohol consumption (no, yes). Thus, the interpretation does not refer to the identification of risk group, but to alcohol consumption. Physical activity level was also evaluated by the International Physical Activity Questionnaire (IPAQ) with regard to leisure, in the long form and in a normal week²¹ (physically inactive = performed less than 150 minutes per week of physical activity, and physically active = performed at least 150 minutes of weekly physical activity); and the participation in social groups (no, yes);
 4. falls in the last year (no, yes).

DATA ANALYSIS

Descriptive statistics were used to analyze the characteristics of the population. Categorical data were described by relative frequency and their respective 95%CI. The normality of the continuous data (age) was tested.

The prevalence of positive self-perception of health and its respective 95%CI were calculated. For the identification of factors associated with positive self-perceived health, a brute analysis was used and adjusted using a Poisson regression. In the adjusted analysis, the variables that showed an association with the outcome ($p \leq 0.05$) were inserted into the model. The final model was adjusted by sex. For all of the analyzes, the statistical program STATA

SE 11.0 was used (StataCorp, 2009. Stata Statistical Software: Release 11. College Station, TX, StataCorp LP).

ETHICAL CONSIDERATIONS

The study was approved by the Ethics Committee on Human Research of the Universidade Federal de Santa Catarina, case number 352/2008. All participants signed an informed consent form. The authors declare no conflicts of interest.

RESULTS

The sample of this study totaled 239 long-lived elderly individuals with a mean age of 85.06 ± 4.68 years old. The prevalence of positive self-perceived health was 41.4% (95%CI 34.6–48.5) (Table 1).

The majority of the long-lived elderly individuals were female, widowed, lived with someone else, had a low educational level (were illiterate or had not completed an elementary education), were white, had no paid and/or voluntary work, and received less than three monthly minimum wages. As for health conditions, most of the individuals had no disease other than systemic arterial hypertension and took at least one medication per day. Regarding lifestyle habits, most of them never smoked and did not drink alcohol; they participated in social groups for elderly people, and were physically inactive during leisure times. Regarding falls, the majority did not have falls during the previous year (Table 1).

In Table 2, it was verified in the brute analysis that positive self-perceived health was associated with depression, medication use, no alcohol use, and being physically active during leisure times. However, after the adjusted analysis it was confirmed that positive self-perception of health remained associated with depression, with a 51% lower prevalence in those with a diagnosis of the disease (PR = 0.49, 95%CI 0.28–0.85), and with alcohol consumption, where the prevalence of positive self-perceived health was practically double that of those who did not consume alcohol (PR = 1.99, 95%CI 1.54–2.56).

DISCUSSION

In the present study, the prevalence of positive self-perceived health was 41.8%. In addition, it was found that positive self-perceived health was less prevalent in elderly people with no depressive symptoms, and was more prevalent in those who consumed alcohol.

It was observed that depression was inversely associated with positive self-perceived health, corroborating the findings of Arnadottir et al.⁹, confirming the relationship between worse health perception and depressive symptoms, which has been well described in

Table 1. Association between sociodemographic characteristics, health conditions, level of physical activity during leisure times, and the falls of long-lived elderly people from the EpiFloripa Idoso Project, Florianópolis, Santa Catarina, 2014.

Variables	n = 239	
	n	% (95%CI)
Self-perceived health		
Positive	100	41.4 (34.6 – 48.5)
Negative	139	58.6 (51.5 – 65.4)
Sociodemographics		
Sex		
Feminine	159	66.0 (58.5 – 72.7)
Masculine	80	34.0 (27.3 – 41.4)
Marital status		
Married/together	91	35.7 (28.7 – 43.4)
Single	9	3.3 (1.6 – 6.6)
Divorced/separated	9	3.9 (2.0 – 7.5)
Widowed	130	57.1 (49.5 – 64.3)
Housing		
Alone	45	20.8 (15.2 – 27.6)
Accompanied	194	79.2 (72.3 – 84.7)
Care-giver		
No	167	71.1 (60.8 – 81.3)
Yes	72	28.9 (18.7 – 39.17)
Schooling		
Illiterate	44	16.6 (11.0 – 24.2)
Incomplete elementary school	104	41.8 (32.8 – 51.4)
Elementary school	28	14.7 (8.3 – 24.7)
High school	43	19.4 (12.7 – 28.4)
Higher education	20	7.5 (3.9 – 13.6)
Skin color		
White	211	87.8 (80.6 – 92.5)
Black/black with light skin/yellow	28	12.2 (7.5 – 19.3)
Work		
No work	232	97.3 (94.0 – 98.8)
Works	7	2.7 (1.2 – 6.0)

Continue...

Table 1. Continuation.

Variables	n = 239	
	n	% (95%CI)
Income (minimum wages)		
< 1	128	49.7 (39.8 – 59.6)
1 to 3	74	31.8 (26.6 – 37.4)
4 to 6	13	6.0 (3.3 – 10.6)
> 6	24	12.4 (6.9 – 21.4)
Health		
Cognitive deficit		
No deficit	124	56.5 (46.8 – 66.2)
Probable deficit	112	43.5 (33.8 – 53.2)
Spine disease		
No	132	52.1 (44.5 – 59.7)
Yes	107	47.9 (40.3 – 55.5)
Arthritis/rheumatism		
No	147	65.9 (57.0 – 74.8)
Yes	92	34.1 (25.2 – 43.0)
Diabetes		
No	188	76.1 (68.4 – 82.3)
Yes	5	23.9 (17.6 – 31.5)
Bronchitis/asthma		
No	199	83.5 (77.1 – 90.0)
Yes	40	16.4 (10.0 – 22.9)
Systemic arterial hypertension		
No	89	37.1 (28.1 – 47.1)
Yes	150	62.9 (52.9 – 71.8)
Cardiovascular diseases		
No	15	60.7 (52.0 – 68.8)
Yes	88	39.2 (31.2 – 48.0)
Depression		
No	180	75.9 (70.6 – 80.5)
Yes	59	24.1 (19.4 – 29.4)

Continue...

Table 1. Continuation.

Variables	n = 239	
	n	% (95%CI)
Stroke		
No	206	87.7 (82.5 – 92.9)
Yes	33	12.3 (7.1 – 17.5)
Stomach ulcer		
No	212	89.0 (84.4 – 93.6)
Yes	27	11.0 (6.3 – 15.6)
Urinary incontinence		
No	132	62.7 (54.3 – 71.2)
Yes	107	37.2 (28.8 – 45.7)
Medication usage		
No	13	5.8 (3.1 – 10.6)
Yes	226	94.2 (89.4 – 96.8)
Behavioral		
Tobacco use		
No	156	64.5 (57.4 – 70.9)
Smoke and stopped	75	32.3 (26.3 – 39.0)
Currently smoked	8	3.2 (1.5 – 6.5)
Alcohol use		
No	195	82.3 (76.3 – 87.0)
Yes	44	17.7 (13.0 – 23.7)
Participation in social groups		
No	75	33.4 (25.2 – 42.6)
Yes	164	66.6 (57.3 – 74.8)
Level of physical activity during leisure times (minutes per week)		
< 150	200	83.1 (76.5 – 88.1)
≥ 150	39	16.9 (11.9 – 23.5)
Others		
Falls in the past year		
No	178	75.0 (68.8 – 80.2)
Yes	61	25.0 (19.7 – 31.1)

Value used to convert the variable of gross family income: EpiFloripa¹¹ R\$ 465; 95%CI: confidence interval of 95%.

Table 2. Adjusted analyzes of the factors associated with positive self-perceived health of long-lived elderly people from the EpiFloripa Idoso Project. Florianópolis, Santa Catarina, Brazil, 2014.

Variables	Positive self-perceived health % (95%CI)	Brute analysis		Adjusted analysis	
		PR (95%CI)	p-value	PR (95%CI)	p-value
Sociodemographic					
Age	–	1.01 (0.97 – 1.05)	0.657	–	
Sex					
Feminine	38.9 (30.4 – 48.1)	1	0.341	1	0.616
Masculine	46.2 (34.5 – 58.3)	1.19 (0.83 – 1.70)		0.91 (0.63 – 1.31)	
Marital status					
Married/together	47.3 (35.4 – 59.6)	1	0.146	–	
Single	50.8 (19.7 – 81.3)	1.07 (0.53 – 2.17)			
Divorced/separated	83.0 (47.8 – 96.3)	1.75 (1.18 – 2.61)			
Widowed	34.3 (24.4 – 45.7)	0.72 (0.47 – 1.12)			
Housing					
Alone	41.8 (27.7 – 57.5)	1	0.955	–	
Accompanied	41.3 (32.6 – 50.5)	0.99 (0.61 – 1.59)			
Care-giver					
No	45.5 (0.37 – 0.54)	1	0.127		
Yes	31.2 (0.55 – 0.83)	0.68 (0.42 – 1.12)			
Schooling					
Illiterate	24.6 (13.3 – 41.0)	1	0.068	–	
Incomplete elementary school	38.2 (28.4 – 48.6)	1.55 (0.82 – 2.95)			
Elementary school	42.6 (29.0 – 57.5)	1.73 (0.90 – 3.34)			
High school	57.5 (28.9 – 81.9)	2.34 (1.07 – 5.09)			
Higher education	51.9 (28.4 – 74.6)	2.11 (1.04 – 4.27)			
Skin color					
White	43.6 (36.8 – 50.7)	1	0.171	–	
Black/black with light skin/yello	25.2 (10.5 – 49.0)	0.58 (0.26 – 1.27)			
Work					
No work	41.3 (34.5 – 48.5)	1	0.964	–	
Works	42.3 (12.3 – 79.2)	1.02 (0.39 – 2.66)			

Continue...

Table 2. Continuation.

Variables	Positive self-perceived health % (95%CI)	Brute analysis		Adjusted analysis	
		PR (95%CI)	p-value	PR (95%CI)	p-value
Income (minimum wages)					
< 1	37.6 (29.2 – 46.9)	1	0.219	–	
1 to 3	39.7 (25.6 – 55.7)	1.06 (0.68 – 1.84)			
4 to 6	23.4 (7.6 – 53.3)	0.62 (0.22 – 1.75)			
> 6	69.4 (49.8 – 83.8)	1.85 (1.29 – 2.64)			
Health					
Cognitive deficit					
No deficit	44.4 (36.3 – 52.6)	1	0.455		
Probable deficit	38.7 (26.5 – 50.9)	0.87 (0.60 – 1.26)			
Spine disease					
No	43.7 (33.1 – 54.3)	1	0.495	–	
Yes	38.8 (29.5 – 48.2)	0.89 (0.63 – 1.25)			
Arthritis/rheumatism					
No	45.6 (35.3 – 55.8)	1	0.187	–	
Yes	33.3 (20.7 – 45.8)	0.73 (0.46 – 1.17)			
Cancer					
No	39.8 (31.3 – 48.2)	1	0.182	–	
Yes	52.8 (35.8 – 69.8)	1.33 (0.87 – 2.02)			
Diabetes					
No	45.9 (37.4 – 54.7)	1	0.058	–	
Yes	26.8 (15.3 – 42.6)	0.58 (0.33 – 1.02)			
Bronchitis/asthma					
No	40.7 (33.3 – 48.2)	1	0.656	–	
Yes	44.7 (27.5 – 62.0)	1.10 (0.72 – 1.67)			
Systemic arterial hypertension					
No	44.1 (31.7 – 57.3)	1	0.583	–	
Yes	39.8 (31.8 – 48.3)	0.90 (0.62 – 1.31)			
Cardiovascular diseases					
No	46.8 (38.6 – 55.1)	1	0.079	–	
Yes	33.0 (22.8 – 45.2)	0.71 (0.48 – 1.04)			
Depression					
No	47.9 (39.2 – 56.7)	1	0.004*	1	0.013*
Yes	20.8 (12.0 – 33.5)	0.43 (0.25 – 0.76)		0.49 (0.28 – 0.85)	

Continue...

Table 2. Continuation.

Variables	Positive self-perceived health % (95%CI)	Brute analysis		Adjusted analysis	
		PR (95%CI)	p-value	PR (95%CI)	p-value
Stroke					
No	43.6 (36.1 – 51.1)	1	0.132	–	
Yes	25.4 (7.8 – 43.1)	0.58 (0.29 – 1.18)			
Stomach ulcer					
No	41.8 (34.3 – 49.2)	1	0.778	–	
Yes	38.1 (14.4 – 61.8)	0.91 (0.47 – 1.75)			
Urinary incontinence					
No	41.4 (33.3 – 49.5)	1	0.994	–	
Yes	41.3 (29.1 – 53.6)	1.00 (0.71 – 1.41)			
Medication usage					
No	69.6 (37.0 – 90.0)	1	0.024*	1	0.058
Yes	39.6 (32.1 – 47.6)	0.57 (0.35 – 0.93)		0.62 (0.37 – 1.02)	
Behavioral					
Tobacco use					
No	41.2 (30.8 – 52.4)	1	0.639	–	
Smoke and stopped	40.0 (29.0 – 52.2)	0.97 (0.61 – 1.53)			
Currently smoked	58.1 (21.6 – 87.4)	1.41 (0.66 – 2.98)			
Alcohol use					
No	34.5 (28.4 – 41.1)	1	> 0.001*	1	> 0,001*
Yes	73.2 (56.0 – 85.5)	2.21 (1.64 – 2.25)		1.99 (1.54 – 2.56)	
Participation in social groups					
No	47.7 (33.2 – 62.6)	1	0.265	–	
Yes	38.2 (30.5 – 46.5)	0.80 (0.54 – 1.19)			
Level of physical activity during leisure times (minutes per week)					
< 150	38.1 (31.1 – 45.7)	1	0.010*	1	0.150
≥ 150	57.3 (42.1 – 71.3)	1.50 (1.11 – 2.05)		1.22 (0.93 – 1.60)	
Others					
Falls					
No	39.9 (33.3 – 47.0)	1	0.454	–	
Yes	45.8 (31.0 – 61.3)	1.15 (0.80 – 1.65)			

PR: prevalence ratio; 95%CI: confidence interval of 95%; *significance level less than 5%. Final model adjusted by sex.

previous studies²²⁻²⁴. Among the elderly, depression is a very common mental health problem²², which, if left untreated, increases the risk of morbidity and mortality, not to mention is associated with a social and economic burden²³.

Positive self-perceived health was also associated with alcohol consumption among the long-lived elderly. Studies²⁵⁻²⁹ have also observed an association between higher alcohol consumption and positive health perception, after adjustment for sociodemographic and lifestyle variables, corroborating the findings of this investigation. Other research showed that the prevalence of negative self-perceived health was higher among those who had stopped drinking, followed by individuals who did not drink²⁷.

The increase in age is an important determinant of the amount of alcohol being consumed. Older people consume less alcohol when compared to younger people, but they consume it more frequently²⁹. Moderate drinking is associated with some good health conditions,²⁷⁻²⁹ such as better cognition and lower risk of dementia³⁰, better functional performance³⁰, less depressive symptoms²⁷, some protection against cardiovascular diseases³¹ and asthma³², lower mortality^{29,31} and better quality of life^{28,33}, which can explain the positive self-perceived health of these elderly people. This association can also be explained by the higher probability of a social bond among alcohol-consuming elderly individuals²⁸.

However, these results may be questioned by some biases. One bias may be economic condition, in which people with a higher income consume more alcohol and can access health services more frequently, thereby reducing the impact of alcohol on their health³⁴. Another point of discussion is that older people who consume alcohol do so because they are healthier, and this is the most likely explanation for the association found between alcohol and positive self-perceived health, in addition to social ties. It is also important to mention that there is a difference in the evaluation of alcohol consumption among the studies, since some studies evaluate low, moderate and high consumption²⁶, some evaluate only moderate use^{29,30}, some evaluate consumption doses^{26,26,33}, and lastly, some evaluate frequency of consumption in days^{26,33}, months²⁶ or years²⁷, compared to individuals who have never consumed and/or individuals who stopped consuming alcohol.

Nevertheless, further investigations are necessary regarding the relationship between health perception and alcohol consumption in the long-lived elderly. The authors of this study do not recommend that elderly people consume alcohol in order to have a positive self-perception of their health, considering that the public health approach in the UK promotes responsible drinking, which seeks to balance the potential benefits of drinking with possible harms³⁴. Furthermore, the Ministry of Health's recommends no alcohol consumption for improved health and the prevention of chronic diseases³⁴.

It is important to highlight that the present study presents some limitations, among them, the study's cross-sectional design, which does not permit the inference of cause and effect relationships between the independent variables and the outcome. Additionally, there was a survival bias, since only elderly people that are alive can be interviewed, something which is inherent to any cross-sectional study. The most serious, the most compromised, and the

sickest patients died or were admitted to long-term care facilities for the elderly, and therefore were not interviewed.

A positive aspect of this study was the fact that research with long-lived elderly people is still rarely studied in Brazil, due to the difficulty of contacting this group, which further illustrates the importance of researching this specific population. Also, the fact that the research's outcome is that of positive self-perceived health as opposed to negative self-perceived health differs from most studies.

Longitudinal investigations may contribute to a better understanding of the associations found. In this regard, the EpiFloripa Idoso project continued the study and carried out a new wave of collections in the years 2013 and 2014.

CONCLUSION

It was concluded that the factors associated with positive self-perceived health of long-lived elderly in Florianópolis, Santa Catarina, were depression and alcohol consumption. Thus, the results show that understanding the variables that interfere with the positive self-perceived health of long-lived elderly can help to improve health measures, especially ones that help to avoid depression in this population. This knowledge, if properly applied, can help reduce costs associated with hospitalizations, medications and health treatments, which are very common in this older population. Furthermore, it serves as an important indicator for the general health surveillance of the elderly who live in this municipality.

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