

# Healthy habits: what kind of guidance the elderly population is receiving from health professionals?

## *Hábitos saudáveis: que tipo de orientação a população idosa está recebendo dos profissionais de saúde?*

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**ABSTRACT:** *Objective:* To describe the prevalence of guidance on healthy habits received from health professionals by elderly and its relation to socioeconomic demographic, behavioral and health indicators, and the type of services. *Methods:* Cross sectional population based study including individuals aged 60 years or more in the urban area of Pelotas, Rio Grande do Sul, Brazil. Seven guidance on healthy habits were evaluated: weight control, reduction in salt, sugar and fat intake, physical activity practice, not smoking and not drinking alcohol. *Results:* Among the 1,451 elderly interviewed, 1,281 (88.3%) consulted in the last year. The orientations more refereed were to fat (61.7%) and salt (61.5%) intake reduction and physical activity (58.2%). Elderly who consulted three times or more and in services financed by the Unified Health System received more guidance. Those elderly from the socioeconomic classes A/B were more likely to receive guidance for weight control (RP = 1.27; 95%CI 1.06 – 1.70) and physical activity (RP = 1.34; 95%CI 1.06 – 1.69). *Conclusion:* The orientation from health professionals were uncommon and, in some cases, unfocused.

**Keywords:** Orientation. Health promotion. Life style. Healthy behavior. Aged. Epidemiology.

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**RESUMO:** *Objetivo:* Descrever a prevalência de orientações sobre hábitos saudáveis recebidas de profissionais de saúde entre idosos e sua relação com indicadores socioeconômicos, demográficos, comportamentais, de saúde e do tipo de serviços. *Métodos:* Estudo transversal, de base populacional, com indivíduos de 60 anos ou mais da zona urbana de Pelotas, Rio Grande do Sul. Foram avaliadas sete orientações sobre hábitos saudáveis: controlar o peso, reduzir o sal, açúcar e gordura, praticar atividade física, não fumar e não ingerir bebidas alcoólicas. *Resultados:* Entre os 1.451 idosos entrevistados, 1.281 (88,3%) consultaram no último ano. As orientações mais referidas foram para redução do consumo de gordura (61,7%), de sal (61,5%) e prática de atividade física (58,2%). Idosos que consultaram três vezes ou mais e em serviços financiados pelo Sistema Único de Saúde receberam mais orientações. Aqueles idosos de classificação econômica A/B tiveram maior probabilidade de receber orientação para controle de peso (RP = 1,27; IC95% 1,06 – 1,70) e para prática de atividade física (RP = 1,34; IC95% 1,06 – 1,69). *Conclusão:* As orientações, por profissionais de saúde, foram pouco frequentes e, em alguns casos, desfocalizadas. *Palavras-chave:* Orientação. Promoção da saúde. Estilo de vida. Comportamentos saudáveis. Idoso. Epidemiologia.

## INTRODUCTION

The demographic change, which affected the worldwide population, is characterized by a populational aging phenomenon<sup>1,2</sup>. In Brazil, this process occurred at the same time as the epidemiological transition, adding a major challenge to the health system<sup>3</sup>, with the need of a greater emphasis and investment in actions of health promotion and prevention<sup>1</sup>.

The National Policy on Health Promotion (*Política Nacional de Promoção da Saúde*: PNPS) aims at actions of prevention of diseases and the promotion of health as a fundamental component of the services, mentioning the guidelines across the life cycle<sup>2,4</sup>. In high-income countries, studies showed an improvement in life habits after the recommendations made by a health professional<sup>5-7</sup>. Brazil has significant social inequalities in health, where individuals with lower economic and education classification tend to use less health services<sup>8</sup>, receiving less orientation<sup>9,10</sup>.

According to the data from the National health Survey of 2013, approximately 90% of the individuals aged 18 years old or older with medical diagnosis of hypertension or diabetes mellitus reported receiving guidance on healthy habits. However, this information was not investigated for the population that did not have these noncommunicable chronic diseases (NCDs)<sup>11</sup>.

The guidelines on healthy habits may be related to several means, including the communication ones<sup>3</sup>. However, actions of promotion and prevention are the role of professionals and must be carried out in all contact of users with the health service<sup>2,12,13</sup>. Receiving guidance on healthy habits by health professionals may be evaluated through observation of medical consultations<sup>14</sup>, in interviews performed in the health service with the individuals<sup>15</sup> and, also, in the report from individuals in household surveys<sup>5,6,16,17</sup>. This last one has some advantages in relation to the previous ones, in that it prevents the answer of the individuals

to be influenced by being in the health services—complimentary bias—and it is estimated more precisely if the guidance is understood, in that the comprehension is essential for the actual accomplishment of the recommendations<sup>18</sup>. Population-based studies on this theme are scarce in Brazil, especially with the elderly population. Most studies investigate the receiving of orientation on healthy habits in populations with some chronic health problem<sup>9,14</sup>.

Thus, this study has the objective of describing the orientation on healthy habits received from health professionals among elderly and their relation to socioeconomic, demographic, behavioral, and health indicators, and the kind of health services.

## METHODS

Cross-sectional study, population based, was carried out with individuals aged 60 years old or older in the urban zone of the municipality of Pelotas, Rio Grande do Sul, in the year 2014. In the last census, conducted by the Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística*: IBGE)<sup>19</sup> in 2010, it was possible to observe that the municipality has 46,099 elderly in the urban areas. The selection of the sample was carried out in two stages, the first one being the selection of census sections in the city according to IBGE and the second, the systematic selection of the households within each sector. To estimate the prevalences of the outcomes, at least 979 elderly would be necessary. To estimate the associations being studied, 1,493 elderly were needed considering the following parameters: confidence interval of 95% (95%CI); statistical power of 80%; minimum prevalence ratio of 1.2; increases of 10% for losses and refusals, 15% for confounders, and 1.5 for design effect.

All individuals aged 60 years old or older were invited to take part in the research. For the elderly with some problem that would make it impossible to answer to the questionnaire, the answers by the responsible people for them were considered. Institutionalized elderly were not included. Further details on the methodological strategy of “Research Consortium,” used in this study may be found in other publications<sup>20</sup>. The final questionnaire was answered by the elderly from the sectors that were not drawn, to ensure the clarity of the questions. The interviewers selected were properly trained and standardized. The interviews were carried out by netbooks where the data were registered, and the anthropometric measures were made at the same time. Losses and refusals were considered after three or more attempts in different days and shifts. The quality control of the interviews was carried out by the students with Master’s degree in 10% of the sample with a shortened questionnaire.

The outcomes of this study were operationalized through the following question: “*Since last year’s <MONTH> until now, has any health professional guided you to...*” being replaced by the following guidelines: controlling weight, reducing salt intake, reducing the intake of sugar and sweets, reducing the intake of fats, practicing physical activities, not smoking, and not drinking alcohol<sup>1,3,12</sup>. These questions were preceded by a filter question: “*Since last year’s <MONTH>, have you consulted with any health professionals?*” The questionnaire used in this study was previously tested.

The demographic and socioeconomic variables used were: gender (male and female), age range (60 to 69, 70 to 79 to 80 years old or older), color of the skin observed by the interviewer (white, brown, black, yellow, and red), marital status (married, single, widowed, and divorced), education (none, incomplete elementary school, complete elementary school, high school, and college degree), and economical status (A: the highest and B, C, D, and E)<sup>21</sup>. The self-reported morbidities (yes/no) — hypertension and diabetes mellitus — the use of continuous medication (yes, no), smoking (never smoked, former smoker, and current smoker), consumption of alcohol within the last 30 days (yes, no), insufficiently active (yes, no), and excess of weight (yes, no) were also used. For the classification of insufficiently active elderly (practice of physical activity <150 minutes/week), the International Physical Activity Questionnaire<sup>22</sup> was being used as an overall estimate, considering the physical activity when moving and in leisure. Also, there was the measuring of weight and height of the elderly. Because of the common presence of column curvature, height was estimated through the measure of height between knees and heels<sup>23</sup>, through specific equations for white and black elderly<sup>24</sup>. For the elderly of other skin colors (4.7% of the sample), the equation for white elderly was used, being possible to obtain an estimate on the real height of all elderly using a child anthropometer by Indaiá<sup>®</sup>, with a scale of 100 cm, graduated in millimeters. For the measuring of weight, electronic scales by Tanita<sup>®</sup>, model UM-080, were used with a maximum capacity of 150 kg and the precision of 100 g. The cutoff point for Body Mass Index defined for excess of weight<sup>25</sup> was >27 kg/m<sup>2</sup>.

Also, the following variables regarding the consultations to health services were used: number of consultations (1, 2, and 3, or more), site of the last consultation (Basic Health Unit [*Unidade Básica de Saúde*: UBS], emergency room, medical office, outpatient in colleges and hospitals/primary care/polyclinics, unions/companies, and others), and financing of the last consultation (private, health insurance or Unified Health System [*Sistema Único de Saúde*: SUS]). The recall period used was 1 year.

The data were analyzed by the STATA 12.1 software. Initially, description of the outcomes obtaining the prevalences and the respective 95%CI was made. To obtain the prevalences of the outcomes according to the independent variables, the  $\chi^2$  test of heterogeneity and the  $\chi^2$  test of linear trend for the ordinal categorical variables were used. We used the Poisson<sup>26</sup> regression to obtain the prevalence ratio and their respective 95% CI and p-values in the gross and adjusted analysis between the outcomes and the economic classification (*Associação Brasileira de Empresas de Pesquisa*: ABEP). The adjustment included gender, age, color of the skin, marital status, and education. It was considered that the economic classification and education were not collinear (correlation = 0.61). Associations with p-value lower than 0.05 were considered statistically significant. All the analyses were carried out using the *svy* command considering the sample design of the study.

The study did not have conflict of interest and the project was approved by the Research Ethics Committee of the School of Medicine of the Federal University of Pelotas (protocol number: 201324538513.1.0000.5317). Elderly of the people responsible for them signed the informed consent.

## RESULTS

A total of 1,844 elderly eligible for the study were identified. Losses totaled 9.7% ( $n = 179$ ) and refusals 11.6% ( $n = 214$ ) totaling 1,451 elderly interviewed. Losses and refusals had lower age mean (69.5 years) than the final sample (70.7 years),  $p = 0.01$ . The higher design effect between the outcomes in the study was 1.3 for “instruction to reduce sugar consumption.”

The prevalence of consultation with health professionals, within the last year, was 88.3% ( $n = 1,281$ ) of the sample used in the present analysis. This sample is similar to the original one ( $n = 1,451$ ) in relation to the demographic, socioeconomic, behavioral, and health characteristics. As for the guidance received, in the context of health services, the most often reported ones were reduction of fat consumption (61.7%; 95% CI 59.0–64.3), reduction of salt consumption (61.5%; 95% CI 58.8–64.2), and for the practice of physical activity (58.2%; 95% CI 55.5–60.9), followed by instruction for the reduction of sugar consumption (49.9%; 95% CI 47.2–52.7), weight control (38.9%; 95% CI 36.3–41.6), not smoking (19.3%; 95% CI 17.1–21.4), and not drinking alcohol (13.4%; 95% CI 11.6–15.3) (Figure 1).

Among the elderly who consulted with health professionals within the last year, most of them were females (64.2%), aged between 60 and 69 years (51.3%), white (84.4%), married (53.8%), with incomplete elementary school (52.9%), and belonging to economical classification C (51.7%) (Table 1). Mostly, the orientation on healthy habits was received among women and among elderly aged 60 to 69 years. As for the color of the skin, only the instruction for reduction of salt intake had a statistical difference, with higher prevalence among nonwhite people. No orientation varied according to the marital status. The higher the education and the economic classification, the greater the prevalence of guidance for weight control and practice of physical education.

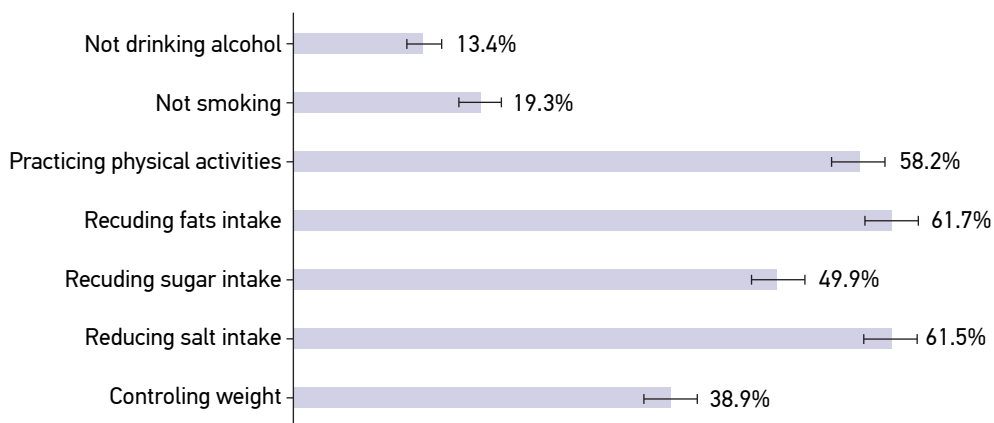


Figure 1. Frequency of guidance about healthy habits given by health professionals to the elderly who consulted in health services within the past year. Pelotas, RS, 2014 ( $n = 1,281$ ).

About 70% reported medical diagnosis of hypertension and 25% reported medical diagnosis of diabetes mellitus. Regarding the behavioral variables, about 10% of the sample were smokers, 20% had alcohol drinks within the last 30 days, 57% had excess of weight, approximately 60% were insufficiently active, and 90% used continuous

Table 1. Description of the sample of elderly people who attended the health services in the past year according to demographic and socioeconomic characteristics. Pelotas, RS, 2014 (n = 1,281).

Variable	n	%
Sex		
Male	459	35.8
Female	822	64.2
Age (years)		
60 to 69	655	51.3
70 to 79	413	32.3
80 or older	210	16.4
Skin color		
White	1079	84.4
Non-white*	200	15.6
Marital status		
With a partner	688	53.8
Single	75	5.9
Separated	111	8.7
Widow	405	31.7
Schooling		
None	169	13.3
Incomplete elementary school	672	52.9
Complete elementary school	132	10.4
Complete high school	146	11.5
Higher education	151	11.9
Economical status (ABEP)		
A/B	483	37.2
C	720	51.7
D/E	169	11.1

\*Black, brown, yellow and red; ABEP: Associação Brasileira de Empresas de Pesquisa.

prescription drugs. Hypertensive, diabetic elderly, who never smoked, who had excess of weight, and who continuously used prescription drugs reported receiving more orientation on healthy habits. Among those who had alcoholic drinks within the last 30 days, the greater prevalences of recommendations were for weight control and not drinking alcohol (Table 2).

Most of the elderly were consulted more than three times in the year previous to the interview (67.9%), with greater proportion of the consultations being financed by the health insurances (44.2%) and held in the medical offices (48.1%). The greatest prevalences of receiving guidance were observed among the elderly who consulted more than three times and in services financed by SUS. In relation to the site of the last consultation, elderly who were consulted in UBS received more instructions for reduction of salt intake and for not smoking. It was observed that the orientation for physical practice was more prevalent among the elderly taken care of by the health insurances and in the medical offices (Table 3).

In the gross model, a statistically significant association between the economic classification and the orientation for weight control, reduction of salt intake, practice of physical activities, and not to smoke was found. After the adjustment, elderly with economic classification A/B had 27% higher probability of receiving guidance for weight control and 34% higher probability of receiving guidance for the practice of physical activities in comparison to the ones with economic classification D/E (the poorest ones) (Table 4).

## DISCUSSION

The prevalence of orientation received for health habits, performed by health professionals, were lower than 62%. When extrapolating this ratio for the target population, who went through consultations within the last year, about 16,282 elderly in the urban area of the municipality did not receive actions on health promotion and prevention of diseases.

Even considering the most vulnerable groups, the recommendations reached less than 80% of the elderly, with the exception of the instruction for reduction of sugar consumption among diabetic individuals. The prevalence of orientation among hypertensive and diabetic patients was lower than most guidances observed in studies carried out in the United States and Canada<sup>5,6</sup> and in a nationwide study recently carried out in Brazil<sup>11</sup>. However, the prevalence of guidance for physical activity practice was higher in a study carried out in areas covered by UBS in Northeastern and Southern Brazil including adults and elderly<sup>16</sup>.

The actions for disease prevention and promotion of health, assigned to professionals, must support the adoption of a healthy lifestyle<sup>2,12</sup>, being a way of integrating the individuals in the management of their own health<sup>15</sup>. The offer of those guidance may bring more quality to the services and reduce diseases related to the lack of health promotion<sup>7,12,27</sup>.

The process of a health system is based on offering and receiving actions, considering this last one is the target of the population in search for health-care services<sup>28</sup>. Elderly consult

Table 2. Prevalence of guidance received on healthy habits according to behavioral and health variables. Pelotas, RS, 2014 (n = 1,281).

Variables	n (%)	Controlling weight	Reducing salt	Reducing sugar	Reducing fats	Practicing physical activities	Not smoking	Not drinking alcohol
Hypertension		p < 0.001	p < 0.001	p < 0.001	p < 0.001	p = 0.002	p = 0.10	p = 0.04
No	406 (31.8)	32.0	37.2	37.9	49.0	51.5	16.5	10.8
Yes	872 (68.2)	42.3	72.9	55.5	67.8	61.5	20.6	14.7
Diabetes mellitus		p < 0.001	p < 0.001	p < 0.001	p < 0.001	p = 0.01	p = 0.69	p = 0.01
No	960 (75.1)	33.8	56.0	38.0	56.2	56.3	19.1	12.0
Yes	318 (24.9)	55.0	78.3	85.9	78.9	64.5	20.1	17.9
Smoking		p = 0.003	p = 0.02	p = 0.13	p = 0.04	p = 0.004	p < 0.001	p < 0.001
Never smoked	714 (55.8)	42.3	64.0	51.8	63.2	61.8	9.0	10.6
Former smoker	429 (33.5)	37.3	61.1	49.4	62.7	55.9	19.8	14.9
Smoker	136 (10.6)	27.2	50.0	42.7	51.5	47.1	72.1	23.5
Alcohol (last 30 days)		p = 0.03	p = 0.10	p = 0.10	p = 0.52	p = 0.17	p = 0.89	p < 0.001
No	1021 (79.9)	37.7	62.7	49.0	62.3	57.3	19.2	12.0
Yes	256 (20.1)	44.5	57.4	54.7	60.2	62.1	19.5	19.5
Excess of weight		p < 0.001	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p = 0.35	p = 0.22
No	517 (43.0)	22.6	52.2	41.2	52.2	51.3	18.4	12.6
Yes	685 (57.0)	52.1	68.2	56.9	69.3	65.6	20.6	15.0
Insufficiently active		p = 0.88	p = 0.11	p = 0.68	p = 0.66	p = 0.004	p = 0.62	p = 0.07
No	487 (40.2)	38.8	58.5	49.5	61.2	63.5	18.7	15.8
Yes	723 (59.8)	39.3	63.2	50.8	62.5	55.7	19.9	12.0
Continuous prescription drugs		p < 0.001	p < 0.001	p < 0.001	p < 0.001	p < 0.001	p = 0.69	p = 0.17
No	128 (10.1)	14.1	25.8	24.2	31.3	32.8	18.0	9.4
Yes	1142 (89.9)	41.9	65.5	53.0	65.3	61.2	19.5	14.0

p-Value:  $\chi^2$  test for heterogeneity.



Table 3. Prevalence of guidance received on healthy habits, according to the characteristics of the health service. Pelotas, RS, 2014 (n = 1,281).

Variáveis	n (%)	Controlling weight	Reducing salt	Reducing sugar	Reducing fats	Practicing physical activities	Not smoking	Not drinking alcohol
Number of consultations		p < 0.001*	p < 0.001*	p < 0.001*	p < 0.001*	p < 0.001*	p = 0.10	p < 0.001*
1	184 (14.4)	25.0	44.6	37.0	48.9	42.4	16.3	6.5
2	239 (18.7)	29.7	59.4	42.7	56.9	49.8	15.5	9.2
3 or more	857 (67.9)	44.5	65.7	54.7	65.7	63.8	21.0	16.1
Financing		p = 0.11	p = 0.006	p = 0.03	p = 0.04	p = 0.008	p = 0.007	p = 0.57
Private	246 (19.2)	36.2	55.7	41.9	55.3	53.7	15.5	12.6
Health insurance	566 (44.2)	42.1	59.7	52.1	61.5	62.9	17.0	12.7
Unified Health System	468 (36.6)	36.3	66.9	51.3	65.0	54.5	23.9	14.7
Site of the last consultation		p = 0.09	p = 0.03	p = 0.20	p = 0.22	p = 0.04	p = 0.04	p = 0.56
Basic Health Unit	301 (23.5)	39.5	69.4	56.2	66.8	54.2	24.6	16.0
Emergency Room	15 (1.2)	20.0	60.0	46.7	73.3	46.7	13.3	13.3
Medical office	615 (48.1)	42.1	57.4	49.6	59.5	62.6	17.1	13.0
Outpatients/PC/Hospitals*	243 (19.0)	33.1	61.6	45.9	59.9	55.8	21.5	12.8
Unions/Companies	93 (7.3)	34.4	63.4	44.1	63.4	49.5	15.1	11.8
Others**	12 (0.9)	41.7	58.3	50.0	50.0	66.7	0	0

p-Value:  $\chi^2$  test for heterogeneity; \*p-value:  $\chi^2$  test for linear trend; \*\*consultations in the household, with family and neighbors; PC: primary care.

health professionals more often<sup>29</sup>, in relation to other age groups. In this study, the relation between receiving guidance on healthy habits and the number of consultation with health professionals was proven positive, confirming that the greater contact with the services represents more opportunities of receiving guidance/recommendations<sup>10</sup>. Nevertheless, considering the prevalence of outcomes and that the most elderly consulted three times or more within the last year, it is likely that the professionals have wasted opportunities of advising someone, considering that approximately 35% of elderly consulted health professionals with this frequency and did not receive orientation regarding the reduction of salt

Table 4. Gross and adjusted analysis between receiving guidance and economic classification. Pelotas, RS, 2014 (n = 1,281).

Guidance	Economic classification (ABEP)** <sup>a</sup>		
	AB	C	p-value
	PR (95%CI)	PR (95%CI)	
Controlling weight			
Gross	1.42 (1.07 – 1.90)	1.22 (0.92 – 1.62)	0.003*
Adjusted	1.27 (1.06 – 1.70)	1.11 (0.85 – 1.47)	0.04*
Reducing salt			
Gross	0.85 (0.72 – 1.01)	0.99 (0.85 – 1.14)	0.04
Adjusted	0.92 (0.77 – 1.11)	0.96 (0.83 – 1.11)	0.70
Reducing sugar			
Gross	1.05 (0.85 – 1.29)	1.15 (0.95 – 1.40)	0.21
Adjusted	1.05 (0.85 – 1.30)	1.08 (0.89 – 1.31)	0.72
Reducing fats			
Gross	0.89 (0.76 – 1.04)	1.00 (0.85 – 1.17)	0.08
Adjusted	0.88 (0.74 – 1.05)	0.95 (0.81 – 1.11)	0.28
Practicing physical activities			
Gross	1.56 (1.24 – 1.96)	1.37 (1.08 – 1.74)	<0.001*
Adjusted	1.34 (1.06 – 1.69)	1.26 (1.00 – 1.59)	0.01*
Not smoking			
Gross	0.66 (0.44 – 0.99)	0.79 (0.54 – 1.16)	0.04*
Adjusted	0.71 (0.47 – 1.07)	0.80 (0.57 – 1.13)	0.13*
Not drinking alcohol			
Gross	1.05 (0.59 – 1.87)	1.02 (0.62 – 1.67)	0.85
Adjusted	1.17 (0.63 – 2.19)	1.07 (0.65 – 1.77)	0.59

ABEP: Associação Brasileira de Empresas de Pesquisa; PR: prevalence ratio; 95% CI: confidence interval of 95%; p-value: Wald test for heterogeneity; \*p-value: Wald test for linear trend; \*\*classification by ABEP: AB (the richest); analysis adjusted by gender, age, color of the skin, marital status and education; category of reference: D/E.

and fat consumption. The Ministry of Health recommends that the recommendations on healthy habits must be made in all contact with the users<sup>3,12,13</sup>.

From the results observed, it is not possible to ensure the quality of the guidance received, which is essential for an educational counseling so that the individual understands and adopts the health professional recommendation<sup>16</sup>, and not just the transmission of information. In this process of health education, there are many factors involved, which were not evaluated in this study, such as the training of the professionals, which may act positively in the insertion of action aimed at promoting and educating about health<sup>12,27</sup>. Another aspect to be mentioned is the time of the consultations, which may be one of the problems that affects the quality of the service, and a reduced number of professionals and a high demand for them, may decrease the supply of information<sup>29</sup>.

In relation to the demographic characteristics, it was observed that women received more orientation, which may be justified by the higher frequency of consultations in health services by females<sup>10</sup>. Also, there were verified lower prevalences of orientations for elderly over 80 years of age, similar to what was observed by Hinrichs et al.<sup>30</sup>. This finding may be justified by the belief, on the part of the professionals, that the adoption of a healthy lifestyle is too late in this age range<sup>1</sup>.

Elderly with some NCDs are the ones who more often use health services for monitoring of their conditions and reduction of injuries by those diseases<sup>31</sup>. Among the elderly with excess of weight, hypertension, diabetes, and who continuously used prescription drugs, it was observed that they were the ones who received more guidance on healthy habits. This finding was similar to the one found in a study carried out among Brazilian adults and elderly<sup>16</sup>. However, we highlight the lost opportunities for prevention of health among the ones who did not have chronic diseases. Counseling must be offered regardless the presence of chronic diseases<sup>17,32</sup>. It is important to highlight that despite the need for medical treatment for NCDs, changes in lifestyle must be encouraged and it should be a part of therapy<sup>13</sup>. Although the prevalences on orientation of healthy habits have been more often observed among elderly with chronic conditions, they may still be under what was expected, considering that this population uses health services more often and thus is more exposed to receiving these orientations<sup>31,32</sup>. This is similar to what was shown in another study, with adults, showing that this impasse is not specific to the elderly population<sup>17</sup>, but rather, an aspect to be improved in health services.

A lower amount of orientation for physical activity practice was observed among the elderly classified as insufficiently active, similar to what was observed by Siqueira et al.<sup>16</sup>. The lack of recommendation may reduce the engagement of the individuals toward healthy habits, precisely those in most need of such counseling, emphasizing that professionals must constantly encourage individual into adopting a healthy lifestyle<sup>5,6,18,29</sup>.

In this study, the prevalences of guidance on not smoking and not drinking alcohol were less than 20%, which may be considered low, these behaviors are, also, related to the high burden of NCDs and their grievances<sup>31</sup>. The questions about receiving these orientations were not directed only to elderly who had these habits, considering it is believed that both behaviors are interrelated and do not have a correct moment for their onset or recurrence<sup>13</sup>.

Also, the PNPS recommends that the population must be strongly encouraged against the adoption and departure of these behaviors<sup>2</sup>, once these measures try to avoid the onset of NCDs or reduce their consequences<sup>1</sup>.

The guidance on healthy habits must be equally distributed in the population<sup>2,7,27</sup>. Nevertheless, there were verified inequalities in relation to the economic classifications in receiving the guidance for weight control and for physical activity practice. The richest elderly have received more of those guidances. The plausibility for this finding is complex, and may be attributed to individual characteristics, that is, elderly with lower acquisitive power consult less in health services (data not shown). However, the characteristics of professionals and health services may explain more thoroughly these findings<sup>27</sup>. Health professionals may conclude that poor people go through greater difficulties to adopt these behaviors, failing to carry out the orientations.

Some limitations of the study must be mentioned. First, the reverse causality may cause difficulty in the interpretation of some associations such as, guidance on weight control and nutritional status. However, the study does not aim at making causal inferences. Also, there is the possibility of a recall bias, once the guidance on healthy habits might not be noted as an important event. Although most part of the literature uses a period of 12 months, studies on validation of recall periods may be carried out for a better understanding of the theme. And, finally, the losses and refusals were different from the sample in relation to age, causing a bias in the prevalence being studied. However, there is no suspicion of bias in the associations evaluated, once the age was included in the adjusted analysis.

Still, it is noteworthy that the outcome for orientation about weight control may not be the best way to be used in populational inquiries, as it might reach out to individuals with excess of weight. The nutritional status of the elderly was unknown before the interviews, thus, with the questionnaires it was possible to observe that this would be the best way to verify the outcome. Another possibility is the classification mistake regarding the source of information of guidance. The recommendations investigated are of a general nature, and may be related to many means, such as the media.

On the positive side, we may highlight the populational representativeness of the study. Studies evaluating this theme are still scarce in the country, especially among the elderly<sup>9,14-16</sup>. Besides, the findings may help health managers of the municipality and similar locations to emphasize the promotion and prevention actions on health among elderly, that is, the study approached the receiving of guidance both according to the individual attributes and characteristics of the health service in the municipality.

## CONCLUSION

The offer of guidance by health professionals about healthy habits should be more frequent, considering the characteristics of the elderly population. It is believed that the services may still be unprepared to meet the growing demand of elderly in the context of encouraging the adoption of a healthy lifestyle, even with the improvements of the evidences

specially in relation to the services financed by SUS, where greater dispensing of instructions was observed, which may be signaled from the findings of this study. Thus, greater investments should be conducted in relation to the educational actions on prevention of diseases and promotion of health. Guidance is a low-cost and low-effort measure and so the professionals should be engaged in these strategies of guiding the elderly population on healthy habits in all the contacts they have with the service, regardless of the socioeconomic aspect or the presence of chronic diseases.

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