



Health conditions of elderly in Primary Health Care

Condições de saúde dos idosos na Atenção Primária a Saúde

Condiciones de salud de ancianos en la Atención Primaria de Salud

Cenir Gonçalves Tier¹, Silvana Sidney Costa Santos², Marcia Adriana Poll¹, Roberta Medeiros Hilgert¹

This study aimed to identify the health conditions and environmental factors that influence the activities of daily living of elderly people. Cross-sectional epidemiological research conducted with 167 elderly in a municipality of Rio Grande do Sul, Brazil, from May to July 2013, using a structured instrument. Data were grouped for statistical/descriptive treatment. Circulatory diseases were the most frequent. The commonly used drug was aspirin, and falls were prevalent in 65 elderly. There was a significant difference in eating in age group older than 80 years ($p=0,002$). Dressing had significance in the age group above 80 years old ($p=0,010$), but was not significant when associated architecture with age. It was concluded that knowledge of the socio-demographic and health characteristics of the elderly enables the implementation of specific actions by health professionals, besides helping managers to formulate health indicators.

Descriptors: Primary Health Care; Health of the Elderly; Nursing.

Objetivou-se identificar as condições de saúde e os fatores ambientais que influenciam nas atividades de vida diária de idosos. Pesquisa epidemiológica transversal, realizada com 167 idosos de um município do RS, Brasil, de maio a julho de 2013, por meio de um instrumento estruturado. Os dados foram agrupados para tratamento estatístico/descriptivo. As doenças prevalentes foram circulatórias. O medicamento usado foi o ácido acetilsalicílico, as quedas foram prevalentes em 65 idosos. Houve diferença significativa da alimentação na faixa etária acima de 80 anos de idade ($p=0,002$). A vestimenta teve significância na faixa de 80 anos acima com ($p=0,010$), porém não foi significativa quando associado arquitetura com faixa etária. Conclui-se que o conhecimento das características sociodemográficas e de saúde dos idosos favorece a implantação de ações específicas pelos profissionais de saúde, além de auxiliar os gestores para formular indicadores de saúde.

Descritores: Atenção Primária à Saúde; Saúde do Idoso; Enfermagem.

El objetivo fue identificar las condiciones de salud y los factores ambientales que influyen en actividades diarias de ancianos. Investigación epidemiológica transversal, llevada a cabo con 167 ancianos de una ciudad del RS, Brasil, de mayo a julio de 2013, mediante instrumento estructurado. Los datos fueron agrupados para tratamiento estadístico/descriptivo. Las enfermedades prominentes fueron circulatorias. El fármaco usado fue el ácido acetilsalicílico, las caídas fueron prominentes en 65 ancianos. Hubo diferencia significativa de alimentación en la edad en los mayores de 80 años ($p=0,002$). La vestimenta tuvo significancia en la edad de 80 años arriba ($p=0,010$), pero no fue significativa cuando asociado arquitectura con edad. Se concluye que el conocimiento de las características sociodemográficas y de salud de ancianos favorece la implantación de acciones específicas por profesionales de salud, además de auxiliar los gestores a formular indicadores de salud.

Descritores: Atención Primaria de Salud; Salud del Anciano; Enfermería.

¹Universidade Federal do Pampa. Uruguaiiana, RS, Brazil.

²Universidade Federal do Rio Grande. Rio Grande, RS, Brazil.

Corresponding author: Cenir Gonçalves Tier

Rua Duque de Caxias, 3235/ fundos/ centro, CEP: 97501-510, Uruguaiiana, RS, Brazil. E-mail: cgtier@gmail.com

Introduction

The proportion of elderly in the Brazilian population has been growing quickly in recent decades, especially from the 60s, resulting in an increasing demand for health systems. This impact is greater in developing countries due to the large number of individuals with low education and in poverty, since they are more exposed to risk factors for chronic non-communicable diseases⁽¹⁻³⁾.

According to studies conducted by the Brazilian Institute of Geography and Statistics, based on two approaches: the self-assessment of health status and the self-assessment of limitations in activities of daily living. As well as a survey on the databases of the study "Health, Wellness and Aging," 2000, which evaluated the life expectancy with functional disability in the elderly in São Paulo. Additionally, the last study was based on information derived from the National Household Sample Survey, 2003, pointing to the existence of social determinants involving the occurrence of inequalities in health in an aging population. These studies show unanimously a more prominent proportion of years of healthy life lost among women, in addition to living longer, elderly women, in São Paulo, have a lower proportion of years lived free of disabilities. Furthermore, the number of years to be lived by elderly women perceiving their health as poor is higher than the estimate for elderly men⁽²⁾.

In this context, the demographic transition occurs at the same time as the epidemiological and health transition in Brazil. Although the database used from the study "Health, Wellness and Aging" is from 2000, the issues raised are still present in our reality, characterized by changes in patterns of morbidity and mortality, with decreased overall mortality and prevalence of chronic and degenerative morbidities, especially in the older age group, with heart disease as the main chronic non-communicable disease. Thus, eliminating it in both male and female would

originate gains in percentages of years to be lived free of disability⁽²⁾.

For this purpose, chronic non-communicable diseases require special strategies to reduce the prevalence of risk factors involved, which directly relate to changes in lifestyle and quality of life⁽³⁾.

Following the global trend, chronic non-communicable diseases cause 72% of deaths and 75% of health expenditure in the Unified Health System in Brazil. This represents a change in the situation of diseases and constitutes a new challenge for health managers, especially given the strong impact of these diseases on the quality of life of affected individuals, the greater chance of premature death and adverse economic effects on families, communities and general society⁽⁴⁾.

The World Health Organization defines chronic diseases as cardiovascular diseases (heart failure, ischemic heart disease, hypertension, and stroke), cancer, chronic respiratory diseases, diabetes mellitus, and musculoskeletal diseases. Also including in this list those diseases that contribute to the suffering of individuals, families and society, such as mental and neurological disorders, mouth, bone and joint diseases, genetic disorders, and ocular and auditory pathologies⁽³⁻⁴⁾.

The constant increase of elderly population, along with the understanding that several factors influence the diseases that affect this population, motivated this study. It is understood that chronic diseases are the leading cause of mortality and disability. Therefore, it is essential that health professionals, especially nurses, possess data on the elderly population, in order to develop actions aimed at improving the therapeutic implemented, as well as a performance fundamentally directed to the prevention and control of these diseases, besides the early identification of environmental risk factors that may influence the quality of life of older people, seeking to build a healthy aging.

In this perspective, the following question guided this study: How is the health of elderly people users of primary health care? It aimed to identify the health conditions and environmental factors of the International Classification of Functioning, Disability and Health that influence the activities of daily living of elderly users of a basic health unit.

Method

Cross-sectional epidemiological study conducted from May to July 2013, with 167 elderly, living in an area covered by a basic health unit in the municipality of Uruguaiana, located on the western border of the state of Rio Grande do Sul, Brazil.

The homes were located from the files in the medical records of the registered families, which had elderly who met the inclusion criteria: people aged 60 years and older, both male and female, registered and with permanent residence in the abovementioned area. As for the exclusion criteria: not be at home on the day of the interview and those with some cognitive impairment (Alzheimer's, Parkinson's, dementia, delirium, and depression, among others) that prevented data collection. In this research, no elderly with significant cognitive problems that prevented the interview was found.

For data collection, it was applied the structured interview that featured three stages. The first consisted of personal and disease-related characteristics. The second referred to issues related to falls such as extrinsic factors (the presence of unstable furniture, inclined stairs without handrails, loose carpets and rugs, inadequate lighting, loose floor boards, polished or slippery floors, high beds, sofas, chairs and toilet very low, hard to reach shelves, presence of pets, wearing shoes in poor condition or badly adapted, and loose wires) and intrinsic factors (the physiological changes of the aging process and

multiple pathologies, as well as the use of Angiotensin Converting Enzyme-inhibitor drugs, diuretics, beta-blockers, anxiolytics, antidepressants associated or not with existing extrinsic factors at home.

The third stage comprised the information about the elements of the environmental factors of the International Classification of Functioning, Disability and Health, designed to meet several different sectors that aim to establish a common language for describing health and health status, improving communication between its users⁽⁵⁾.

Data were organized into an Excel spreadsheet and analyzed using the software Statistical Package for Social Sciences, version 20.1. Nominal variables were described considering absolute frequencies and percentages, and numerical variables were described by mean and standard deviation.

Independence tests were used to evaluate the association of the independent variables: gender, age, marital status, education, chronic non-communicable diseases, occupation, income, lives with whom, and environmental factors of the International Classification of Functioning, Disability and Health, with the presence of the dependent variable: Falls. The chi-square test was applied when expected frequencies were greater than 5, otherwise, we applied the Fisher's exact test. To verify the magnitude of effect, prevalence ratios and their respective confidence interval of 95% were calculated.

As regards the environmental factors, the Mann-Whitney test was used. Finally, the variables were entered into a model to predict the risk of falling. The appropriate model for cross-sectional studies is the Poisson Regression. The criterion to enter the variable into the model was to produce a p-value < 0.10 in the bivariate analysis. The significance level adopted was 5% (p ≤ 0.05).

The research followed the prerogatives of Resolution No. 466 of December 12, 2012, which

regulates research with human beings. For this purpose, it was submitted to the Research Ethics Committee in the Health Area of the Universidade Federal do Rio Grande, being approved under Protocol No. 88/2013. Each interview was identified by the first letters of the names of the respondents followed by the sequential number of the interviews.

Results

Circulatory diseases were the most reported by the elderly (132, 79.0%) distributed in all age groups ($p=0.426$), whereas musculoskeletal, endocrine,

respiratory, and digestive diseases occurred between 60 and 69 years ($p<0.001$). 96 elderly (57.5%) presented some associated comorbidity, in the age group of 70-79 years, the one with highest proportion (<0.001).

History of falls occurred in 65 (38.9%) elderly, with a prevalence in the age group of 70-79 years ($p=0.036$), with falls experienced by 31 (47.7%) elderly in the last 12 months. There was no significant difference between the number of falls and age groups ($p=0.721$) (Table 1).

Table 1 - Distribution of diseases, comorbidities, history of falls, and falls among 167 elderly, according to age group

Variables	Total (n=167) n(%)	Age group (years)			p*
		60 - 69 (n=82) n(%)	70 - 79 (n=65) n(%)	≥ 80 (n=20) n(%)	
Diseases					
Circulatory	132 (79.0)	63 (76.8)	51 (78.5)	18 (90.0)	0.426
Musculoskeletal	52 (31.1)	52 (63.4)	0 (0.0)	0 (0.0)	<0.001
Endocrine	15 (9.0)	15 (18.3)	0 (0.0)	0 (0.0)	<0.001
Respiratory	14 (8.4)	14 (17.1)	0 (0.0)	0 (0.0)	<0.001
Digestive	12 (7.2)	12 (14.6)	0 (0.0)	0 (0.0)	0.001
Genitourinary	7 (4.2)	7 (8.5)	0 (0.0)	0 (0.0)	0.023
Hematopoietic Disorders	3 (1.8)	3 (3.7)	0 (0.0)	0 (0.0)	0.205
Cancer	1 (0.6)	1 (1.2)	0 (0.0)	0 (0.0)	0.594
	3 (1.8)	3 (3.7)	0 (0.0)	0 (0.0)	0.205
Comorbidities					
None	23 (13.8)	7 (8.5)	14 (21.5)	2 (10.0)	<0.001
1	96 (57.5)	27 (32.9)	51 (78.5)	18 (90.0)	
2-3	37 (22.2)	37 (45.1)	0 (0.0)	0 (0.0)	
≥ 4	11 (6.6)	11 (13.4)	0 (0.0)	0 (0.0)	
Falls					
Yes	65 (38.9)	25 (30.5)	28 (43.1)	12 (60.0)	
No	102 (61.1)	57 (69.5)	37 (56.9)	8 (40.0)	
History of falls (n=65)					
1	31 (47.7)	14 (56.0)	13 (46.4)	4 (33.3)	0.721
2	15 (23.1)	5 (20.0)	6 (21.4)	4 (33.3)	
3	10 (15.4)	3 (12.0)	4 (14.3)	3 (25.0)	
≥ 4	9 (13.8)	3 (12.0)	5 (17.9)	1 (8.3)	

*Pearson's chi-squared test

Environmental elements of the International

Classification of Functioning, Disability and Health were evaluated according to age group. Acetylsalicylic acid was consumed in all age groups, with greater proportion among octogenarians ($p < 0.001$), and diclofenac among the elderly aged 60-69 years ($p < 0.0010$) (Table 2).

Table 2 - Use of medications reported by elderly, according to age group

Variables	Age group (years)				p**
	Total n=167 n(%)	60 - 69 (n=82) n(%)	70 - 79 (n=65) n(%)	≥ 80 (n=20) n(%)	
Medicines					
Acetylsalicylic acid	101 (60.5)	54 (65.9)	28 (43.1)	19 (95.0)	<0.001
Diclofenac	46 (27.5)	44 (53.7)	2 (3.1)	-	<0.001
Paracetamol	86 (51.5)	35 (42.7)	36 (55.4)	15 (75.0)	0.025

By studying the number of environmental factors of the International Classification of Functioning, Disability and Health among elderly, according to age group, there was significant difference in eating ($p = 0.002$), with special reference to those aged over 80 years. Dressing was associated in the age group older than 80 years ($p = 0.010$). There was no significant difference between architecture and age groups (Table 3).

Table 3 - Number of environmental factors of the International Classification of Functioning, Disability and Health among elderly people, according to age group

Environmental factors	Age (years)				p*
	Total n=167 n(%)	60 - 69 (n=82) n(%)	70 - 79 (n=65) n(%)	≥ 80 (n=20) n(%)	
Median (P25 - P75)					
Eating	16 (15-17)	16 (15-17) ^b	16 (15-17) ^b	14 (12-16) ^a	0,002 [#]
Dressing	12 (9-15)	12 (11-15) ^b	11 (9-31) ^{ab}	9,5 (8-11) ^a	0,010 [#]
Architecture	27 (24-30)	28 (25-31)	27 (24-29)	26 (19-31)	0,054 [#]

*Pearson's chi-squared test; #Kruskal-Wallis test; ^{a,b}Same letter do not differ by Mann-Whitney test at 5% significance

Younger elderly (<70 years) reported more

comorbidities, specifically respiratory, digestive, genitourinary, musculoskeletal, and endocrine diseases. They also used more diclofenac and presented higher number of environmental factors of the International Classification of Functioning, Disability and Health, particularly in relation to eating and dressing, compared with older elderly (80 years and older). Nevertheless, older elderly (80 years and older) use more aspirin and paracetamol, besides presenting the highest prevalence of falls.

Discussion

The Ministry of Health is discussing and implementing measures to reduce chronic non-communicable diseases, which were triggered by studies conducted by the Brazilian Institute of Geography and Statistics, through the Health, Wellness and Aging Project and the National Household Sample Survey. This project aimed, among others, at knowing the indicators of life expectancy free of disability. This information may serve for planning actions, thus affecting the reduction or elimination of disabilities. In addition to allow estimating the benefits of interventions for use in cost-effectiveness analysis, and contribute to the planning of public policies and health programs in order to understand the distribution, size and trend of chronic diseases, injuries, risk factors and prevention of chronic non-communicable diseases in the Brazilian elderly population^(2,6).

Chronic non-communicable diseases such as cardiovascular disease, hypertension, stroke, diabetes mellitus, chronic obstructive pulmonary disease, cancer, arthritis, osteoporosis, depression, decreased vision and/or blindness, amputations, associated with each other and with other factors constitute agents that influence the quality of life. Namely: gender, age, marital status, smoking, excessive alcohol consumption, unsafe sex, physical inactivity, excess weight, unhealthy diet, social stress, and poverty^(3,6).

Regarding comorbidities, the elderly may suffer several types of changes favoring the fragile condition,

which is characterized by increased vulnerability due to decreased physiologic reserve and increased functional decline associated with multiple physical changes. This set of factors affects the health of the elderly through chronic non-communicable diseases or a situation of comorbidities that can lead to a higher incidence of disease or death, because the human aging process constitutes a group of morphological changes leading to a continuous and irreversible organic disruption process⁽⁷⁻⁸⁾.

This way, considering the increase in life expectancy associated with frailty and disability in the elderly, there is need for the healthcare team, especially nurses, to identify these elderly, so that the actions of health promotion and prevention are planned and provide a space to the frail elderly to live with a better quality of life⁽⁷⁾.

The incidence of chronic diseases tends to aggravate with age and with increasing life expectancy, thereby leading to a growth in their prevalence among the population. Moreover, they become conditions that tend to remain with subjects for a long period, as well as show periods of aggravation, stabilization and improvement, besides affecting various organs and systems, sometimes requiring prolonged hospital stay⁽⁹⁾.

Given this context, there is need for the health team, especially nurses, to promote/invest in self-care of the elderly, reviewing values and principles through self-reflection, considering the biopsychosocial context and completeness of body dimensions (physical, mental and spiritual). The self-care process in the goals of nursing care does not derive from the professional's perceptions, rather from the individual needs and preferences; in other words, health promotion is not just the responsibility of the health sector, rather a person's practice for and developed by themselves. Therefore, health promotion becomes a process of community empowerment aimed at their wellbeing through greater participation in the control of this process⁽¹⁰⁾.

Study on elderly people mentions that with

the advancing age there is a growing incidence of falls, since the age is closely linked to other exposure factors related to the event of falling, and both falls and the fear of falling are common syndromes that have severe results on the behavior of the elderly⁽¹¹⁾. Such factors have multifactorial origin and involve intrinsic and extrinsic conditions. It is understood by intrinsic factors those arising from physiological changes and by extrinsic factors those related to unsafe environments. The early and correct identification of the major risk factors for falls converges to the possibility of preventing these events and, consequently, improving the quality of life for seniors⁽¹²⁾.

The consequences of falling can range from the simplest, such as excoriation, to the most complex, such as restricted activity, fear of falling syndrome, and decline in health, which creates demand for long-term care. Thus, by identifying the risks of falling, people can avoid complications such as the need for health interventions and increased physical dependence, besides financial burden to the health system⁽¹²⁾.

For this purpose, nursing care should focus on prevention campaigns about the risks involved in falls and the fear of recurrent falls, aiming to avoid that the fear of falling results in decreased quality of life among the elderly and their families, who end up with the obligation of taking care of this elderly. In addition, self-help groups with physical activities and discussions on the theme can be viable instruments to be implemented by health care professionals, especially nurses, in order to reduce the incidence of this event⁽¹¹⁾.

In Brazil, 30% of seniors fall at least once a year, with a higher incidence among women than in men from the same age group. Falls are causally related to 12% of all deaths in the geriatric population, accounting for 70% of accidental deaths in people aged 75 years and older. Additionally, they represent the sixth leading cause of death in patients over 65 years. Among those hospitalized due to a fall, the risk of death in the year following hospitalization ranges from 15% to 50%⁽¹³⁾.

Regarding the use of the environmental elements of the International Classification of Functioning, Disability and Health, eating, dressing and medicines acted as markers to understand which age groups were more facilitators or barriers to the performance of activities of elderly resident. Environmental factors comprise the physical, social and attitudinal environment in which people live and conduct their lives. Thus, the International Classification of Functioning, Disability and Health constitutes an important instrument to be used by multidisciplinary teams, and especially for nursing, in order to assess the living conditions and the promotion of social inclusion policies for elderly people in the context of functional limitations and frailty situations, representing a paradigm shift to think and work disabilities⁽¹⁴⁾.

Functionality is verified when it comes to health care for the elderly, keeping in mind the maintenance of health, autonomy and independence. Population studies reveal that about 40% of people aged 65 years and older require some kind of help to perform intermediate tasks and about 10% require assistance to perform basic tasks. In this context, as people age, it may become more difficult to perform many daily activities, until they understand they already depend on another person, thus becoming necessary to strengthen the social network and social support, mainly the family of elderly with morpho-functional limitations, and for elderly people with weak social networks and social support⁽¹⁵⁻¹⁶⁾.

Conclusion

Health conditions and environmental factors influence the activities of daily living of elderly users of a basic health unit.

Circulatory diseases were the most frequent in the age group from 60 to 69 years; with special reference to one associated comorbidity among those aged 70-79 years; and acetylsalicylic acid was the drug most commonly used. The elements of the

International Classification of Functioning, Disability and Health present in the lives of seniors were eating and dressing, being more frequent in the age group over 80 years.

For this purpose, the data of this research are proven relevant to understanding the health of the elderly in different age groups. There is urgent need for implementing prevention and health promotion activities, in accordance with the proposals disseminated by the Ministry of Health. Furthermore, the data serve as source to alert professionals working with older people and service managers about the need for attention to preventive measures for different age groups.

It was concluded that knowledge of the socio-demographic and health characteristics of these elderly enables health professionals to implement specific actions for this age group, especially those working in primary care, because the focus on population, prevention, continuous monitoring, as well as the integration between levels of health care are important for expert assistance and proper management of chronic diseases.

Collaborations

Tier CG contributed in the study design, literature review, data collection and analysis, and drafting of the article. Santos SSC contributed in the study design, literature review, data analysis, and drafting of the article. Poll MA contributed to the literature review, critical analysis, review and final drafting of the article. Hilgert RM contributed to the literature review and data collection.

References

1. Lima-Costa MF, Matos DL, Camargos VP, Macinko J. 10-year trends in the health of Brazilian elderly: evidence from the National Household Sample Survey (PNAD 1998, 2003, 2008). *Ciênc Saúde Coletiva*. 2011; 16(9):3689-96.
2. Campolina AG, Adami F, Santos JLF, Lebrão ML. A

- transição de saúde e as mudanças na expectativa de vida saudável da população idosa: possíveis impactos da prevenção de doenças crônicas. *Cad Saúde Pública*. 2013; 29(6):1217-29.
3. Azevedo ALS, Silva RA, Tomasi E, Quevedo LÁ. Doenças crônicas e qualidade de vida na atenção primária à saúde. *Cad Saúde Pública*. 2013; 29(9):1774-82.
 4. Goulart FAA. Doenças crônicas não transmissíveis: estratégias de controle e desafios para os sistemas de saúde Brasil. [Internet] 2011 [citado 2013 nov 10]. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/doencas_cronicas_naotransmissiveis_estrategias.pdf
 5. Organização Mundial da Saúde/OPAS. Classificação internacional de funcionalidade, incapacidade e saúde. São Paulo: Edusp; 2003.
 6. Queiroz RFQ, Alvarez ÂM, Erdmann AL, França ALM, Pereira CBS. Cardiovascular events and additional risk in hypertensive senior citizens. *Rev Rene*. 2014; 15(1):52-9.
 7. Fhon JRS, Diniz MA, Leonardo KC, Kusumota L, Haas VJ, Rodrigues RAP. Frailty syndrome related to disability in the elderly. *Acta Paul Enferm*. 2012; 25(4):589-94.
 8. Claudino R, Schweitzer V. Estudo do perfil das comorbidades para o risco de ocorrência de doenças crônicas em idosos institucionalizados. *Rev Digital*. 2010 [citado 2013 nov 10]; 14(141). Disponível em: <http://www.efdeportes.com/efd141/doencas-cronicas-em-idosos-institucionalizados.htm>
 9. Lima MG, Barros MBA, César CLG, Goldbaum M, Carandina L, Ciconelli RM. Impact of chronic disease on quality of life among the elderly in the state of São Paulo, Brazil: a population-based study. *Rev Panam Salud Publica*. 2009; 25(4):314-21.
 10. Silva ACS, Santos I. Promoção do autocuidado de idosos para o envelhecer saudável: aplicação da teoria de Nola Pender. *Texto Contexto Enferm* 2010; 19(4):745-53.
 11. Antes DL, Schneider IJC, Benedetti TRB, D'Orsi E. Medo de queda recorrente e fatores associados em idosos de Florianópolis, Santa Catarina, Brasil. *Cad Saúde Pública*. 2013; 29(4):758-68.
 12. Costa AGS, Araujo TL, Oliveira ARS, Morais HCC, Silva VM, Lopes MVO. Risk factors for falls in the elderly. *Rev Rene*. 2013; 14(4):821-8.
 13. Organización Mundial de la Salud. Centro de Prensa. Caídas. [Internet] 2012 [citado 2013 nov 28]. Disponível em: <http://www.who.int/mediacentre/factsheets/fs344/es/>
 14. Machado WCA, Scramin AP. Functional (in) dependence in the dependent relationship of quadriplegic men with their (un)replaceable parents/caregivers. *Rev Esc Enferm USP*. 2010; 44(1):53-60.
 15. Santos SSC, Gautério DP, Vidal DAS, Rosa BM, Zortea B, Urquia BS. (In)dependence of elderly people at their home in performing basic activities of daily living. *Rev Rene*. 2013; 14(3):579-87.
 16. Torres JL, Dias RC, Ferreira FR, Macinko J, Lima-Costa MF. Functional performance and social relations among the elderly in Greater Metropolitan Belo Horizonte, Minas Gerais State, Brazil: a population-based epidemiological study. *Cad Saúde Pública*. 2014; 30(5):1018-28.