Original Article

Family functioning of Brazilian elderly people living in community

Funcionalidade familiar de idosos brasileiros residentes em comunidade

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Keywords
Family relations; Aged; Community; Caregivers; Geriatric nursing

Descritores
Relações familiares; Idoso; Comunidade; Cuidadores; Enfermagem geriátrica

Submitted
April 13, 2017

Accepted
July 21, 2017

Abstract

Objective: To evaluate the family functioning of Brazilian elderly people and test how determining factors influence it.
Methods: Cross-sectional study with 2,052 elderly people based on data collected in the baseline of the study Aging, gender and quality of life (AGEQOL), with participants answering questionnaires about family dynamics, basic and instrumental activities of daily living (ADL and IADL), cognitive state and sociodemographic characteristics. Multivariate ordinal regression models and multiple correspondence analysis identified factors associated with good family functioning.
Results: Most elderly people had good family functioning (76.3%), were married and lived with their spouse (55.5%), had more than six children and grandchildren (85.4% and 76.7%, respectively) and were independent to perform IADL (71.5%). Correspondence analysis resulted in three groups: good, moderate and poor family functioning, and a profile of elderly people with different socioeconomic conditions.
Conclusion: It was possible to infer implications for practices and policies of family care with elderly members to meet their specific routine and life and health conditions.

Resumo

Objetivo: Avaliar a funcionalidade familiar de idosos brasileiros; testar a influência de fatores determinantes.
Métodos: Estudo transversal com 2.052 idosos, a partir de dados coletados da linha base referente ao estudo "*Aging, Gender and Quality of Life* (AGEQOL)", responderam questionários sobre funcionamento familiar; atividades básicas e instrumentais de vida diária (AVD e AIVD); estado cognitivo; e características sociodemográficas. Modelos multivariados de regressão ordinal e análise de correspondência múltipla identificaram fatores associados à boa funcionalidade familiar.
Resultados: A maior parte dos idosos gozava de boa funcionalidade familiar (76,3%), era casada e vivendo com cônjuge (55,5%), tinha mais de seis filhos e netos (85,4% e 76,7%, respectivamente) e independente para AIVD (71,5%). Análise de correspondência resultou em três grupos: alta, moderada e baixa funcionalidade familiar e perfil de idosos com distintas condições socioeconômicas.
Conclusão: Infere-se dos resultados implicações para a prática e política de atenção à família com membros idosos segundo seu funcionamento e distintas condições de vida e saúde das pessoas idosas.

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DOI
http://dx.doi.org/10.1590/1982-0194201700053

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Conflicts of interest: there are no conflicts of interest to declare.

Introduction

According to estimates of the United Nations, the world elderly population will be twice as large in 2050.(1) In Brazil, aging has been progressing faster than in Europe in the beginning of the demographic transition process. The population share older than 60 years old already represented 10.8% of the total in 2010.[2]

Aging is related to the interaction of several dimensions, which encompass physical, mental and psychosocial health, family support, autonomy and financial independency. From the "flow of life" perspective, the actions on the social determining factors on elderly people's health must be multisectorial and occur in all steps of the life cycle, starting in pregnancy to protect the fetus, running through childhood and spanning the entire life until old ages, given that the individual health condition is a marker of a person's social positions in the past.[3,4]

During the aging process, families go old with their older members and experience changes in their composition. The different situations that this process presents to elderly people and their relatives can affect family functioning, that is, impact on the harmony and equilibrium in the relationship between older and younger people.[5] Aging is challenging, but improvements in physical and social conditions can help face the singularities of this process.[4] Family support and living together are perceived as primordial factors to an active aging and can be stimulated through the participation of elderly people in daily life. Adaptation and coexistence of elderly people with their families interfere with their development as a whole.[3] Living in society, outside the family environment, also allows the exchange of experiences, ideas, feelings, knowledge and doubts. This means that elderly people must engage in activities that make them happy, healthy and useful.[6,7]

Care to elderly people must involve themselves, their families and the community in which they are inserted.[3,8] It is not sensible to conceive aging as an individual and homogeneous experience before the analysis of the changes that people go through during this process. Taking this into consideration, the objective of the present study was to evaluate the functioning of families of Brazilian elderly people living in community and test the influence of possible determining factors.

Methods

Sample and characteristics

The present study is a cross section developed from data collected in the baseline of the study Aging, Gender and Quality of Life (AGEQOL),[3] a population-based cohort on active aging, quality of life and gender carried out in 2012 in Sete Lagoas, Minas Gerais, Brazil.

The reference population of the present study consisted of people of both genders aged 60 years old or older living in the mentioned city. Exclusion criteria were: people that lived in long-term stay institutions in the period during which data collection took place, given that contextual conditions are different in this environment; people that declared to have severe and nontreated visual and/or hearing disabilities, by themselves or through an informer; people with cognitive impairment that prevented the understanding of the interview.

The adopted plan of sample complex design[9-12] included sample calculation for comparison of genders taking into account the prevalence of functional incapacity for instrumental activities of 86.6% in the male gender and 72.9% in the female. The estimated error was up to 5%, the power of the test was 80%, with confidence intervals of 95%(CI95%), considering a design effect equal to 2. An addition of 20% was adopted for losses and refusals. Subsequently, the sample in each group (men and women) was stratified according to age group in comparison with the population and corrected for death probability. The numbers of women and men in the baseline of the study were 1,226 and 826, respectively, totaling 2,052 participants.

Sampling was carried out in two steps, drawing of sectors and residences, by using the cluster probability sampling technique under the criterion of probability proportional to size (PPS) in two stages (sectors and residences). They were drawn proportionally to the number of permanent residences occupied by stratum: city area, rural area, district. The interviews were conducted with all the people that were 60 years old or older and agreed to participate in the research, regardless of their marital status or level of relatedness.

Pilot study and data collection

The pilot study was carried out before the present investigation and involved 107 elderly people in a neighbor city. Although the instruments are validated for application in Brazil, the test/retest method was used to assure the reliability and performance of the questionnaires and tests in the studied population. The obtained coefficients were higher than 0.80 ($p<0.001$); weighted Kappa (CI95%) = 0.81 (0.71-0.91); and adjusted Kappa = 0.86.

Data collection took place at the elderly people's home between January and July 2012 and was conducted by three examiners and three calibrated scorers. Interviews lasted from 40 to 60 minutes. The cases in which the elderly person was not found at home after three attempts, including weekends, were considered as missed interviews/exams. The project was announced among city authorities, means of communication and folders. It was approved by the Research Ethics Committee of the Federal University of Minas Gerais, with a certificate of presentation for ethical appreciation number 0413.0.203.000-11.

Instruments and studied variables

Family dynamics was evaluated by the Brazilian version[15] of family APGAR[13,14]. The dependent variable represented family functioning, measured as good, moderate and poor. Other variables, such as functional dependency, were assessed through six basic activities of daily living (eating, dressing, grooming, transferring (walking), bathing, and continence) and seven instrumental tasks (using the telephone, traveling, shopping, preparing meals, housekeeping, taking medications and managing money). To evaluate the cognitive situation of the elderly people, the authors used the Mini-Mental State Examination (MMSE), validated in Brazil, with the cutoff set as 21/22 points.[16] To know the expression of family functioning in elderly people's lives in further detail, the following parameters were set as independent variables: age group (60-64 years old, 65-69 years old, 70-74 years old, 75-79 years old, ≥80 years old); marital status (married, divorced, single or widowed); years of education (0, 1-4, 5-7, ≥8); monthly income dichotomized by the median (≤R$622.00; >R$622.00); retirement (yes or no). Family support was evaluated through the composition of the living arrangement (lives with spouse, mixed/intergeneration arrangements, lives alone); number of children (0, 1-5, ≥6); number of grandchildren (0, 1-5, ≥6); presence of a caregiver (yes or no).

Data analysis

Frequency analysis between genders with a chi-square test was performed, with an acceptable error of 5%. All the information about the variables was stored in the Statistical Package for the Social Sciences (SPSS) software for Windows, version 19.0. The data were analyzed in two phases. In the first, the variables related to gender were described; as for the identification of factors associated with good family functioning, a bivariate analysis was carried out for each independent variable through the chi-square test, with a level of significance of 5%. In a subsequent step, the variables under discussion were evaluated through an ordinal logistic regression using the Polytomous Universal Model (PLUM), which incorporates the ordinal nature of the variable in the analysis. Thus, a logistic regression with the model Proportional Odds and function Logit was performed followed by a comparison of probabilities among the categories of the dependent variable through the calculation of raw and adjusted odd ratios.[17]

Because socioeconomic conditions can interfere with family functioning, especially in the elderly population,[18] the final model was adjusted to stress age group, gender, marital status, income and schooling and considered maintained the variables that reached the level of statistical significance of 5% ($p<0.05$).

Homogeneity tests of the slopes and of multicollinearity were performed with Pearson's fit to analyze the validity of the designed model. To examine a possible influence of the reduced number of some observations, a residual analysis was used for ordinal data.[19] These tests showed that the model met all the assumptions. The effect of complex sample design was considered in all analyses.

Last, combined relations of family functioning and variables associated in the final model with socioeconomic characteristics were explored through a multiple correspondence analysis. This is an exploratory technique used to analyze categorical data with multiple answers and graphically visualize the formation of distinct clusters. The relations among the categories of the variables in this analysis were investigated without the requirement to attribute a causal structure or assume a probability and a distribution *a priori*. This technique is suitable for the study of risk factors that can be associated with some specific features, allowing to identify the risk profile in each established group.[17]

Results

Sample description

The baseline age in the present study varied from 60 to 106 years, with an average of 70.89 ± 8.14 years (71.03 ± 8.35 for women and 70.69 ± 7.83 for men). It is a representative sample of the elderly population of the city, given that it corresponds to 10% of this age group. In addition, the response rate can be considered high (98.8%) and, unlike other studies, the probability sample was calculated separately for each gender, which stresses the importance of the investigation.

Descriptive statistics applied to socioeconomic, family support and functional and cognitive capacity of the elderly people according to the gender revealed that about 15% of the participants were octogenarians, from whom 60.8% were females. More than half women (51.5%) was older than 70 years old, whereas most men (70.8%) was between 60 and 74 years old; there was no statistically significant difference between genders. No difference in years of education was observed when comparing the genders, and 29.1% of the men and 27.7% of the women were illiterate. However, genders presented significant disparities regarding marital status, income, retirement situation and living arrangement. Most men were married (74.5%), whereas 41.3% of the women were single or widow. Most elderly people had a low monthly income (66.1%), with a higher percentage among women (71.5% versus 58.1% for men).

As for living arrangements, 75.5% of the men lived with their spouse and 62.4% of the women lived alone or in mixed arrangements ($p<0.001$). The number of participants that had a caregiver and did not have grandchildren was slightly higher among women (20.2% of the men and 21.5% of the women in the first variable and 7.9% of the men and 11.1% of the women in the second).

Gender did not play a significant role in the analysis of functional capacity to execute ADL and cognitive deficit in the studied sample. As for functional capacity, the prevalence of some functional dependency was high (29.3%), with a statistically significant difference ($p<0.001$) between genders (23.7% for men and 33% for women).

Association of family functioning with other variables

Most elderly people had good family functioning (76.3%); only 177 (8.6%) had a highly dysfunctional family. The results of the chi-square test, shown in table 1, allowed the identification of a statistically significant association of family functioning with the following variables: marital status ($p<0.001$), living arrangement ($p<0.001$), number of children ($p<0.001$), number of grandchildren ($p<0.001$) and functional dependency to perform IADL ($p=0.024$). The elderly people that had a family with good functioning were married (55.5%), lived with their

spouse (55.5%), had more than six children and grandchildren (85.4% and 76.7%, respectively) and were independent to execute IADL (71.5%).

There was no association of family functioning with socioeconomic conditions, except for marital status. Nevertheless, among the illiterate, 18.3% and 9.8% had a family whose functioning was classified as moderate and poor, respectively. In the group of elderly people whose family was highly dysfunctional, most were women (58.8%), younger than 75 years old (72.3%), single or widowed (50.8%), retired (70.6%), with few years of education (58.8%) and low monthly income (64.4%).

The prevalence of cognitive deficit was higher among elderly people from families presenting poor and moderate functioning (14.7% and 14.8%, respectively) in comparison with participants with functional families (12.3%), but no statistical significance was observed. Surprisingly, the percentage of elderly people independent for ADL and IADL was higher among those with poor family functioning (76.8% and 93.8%, respectively) in comparison with those whose families showed good functioning (71.5% and 92.5%, respectively).

Results of the ordinal regression model

In the raw model, only the type of living arrangement, number of children, number of grandchildren and cognitive deficit showed a statistically significant association with family functioning. The probability of an elderly person having a family with good functioning was higher among participants that lived with their spouse (OR=2.3; CI5%=1.7-3.0) and those that lived in mixed arrangements (OR=2.3; CI5%=1.7-3.0) when compared to the elderly people that lived alone. Furthermore, cognitive deficit and absence of children and grandchildren increased in 70% (OR=0.7; p=0.040), 40% (OR=0.4; p<0.001) and 60% (OR=0.6; p<0.001) the chance to belong to a family with significant dysfunction, as exhibited in table 2.

After adjusting the model considering socioeconomic conditions, the variable dependence for ADL was inserted in the model, whereas the number of grandchildren did not remain statistically associated with the outcome. Complete dependency to execute

Table 1. Association of demographic data with family functioning of elderly people living in community in a Brazilian city

Variables	Family functioning			p-value*
	Good (n = 1,565)	Moderate (n = 310)	Poor (n = 177)	
	n (%)	n (%)	n (%)	
Age				
60-64 years	394(25.2)	81(26.1)	56(31.6)	0.366
65-69 years	381(24.3)	67(21.6)	34(19.2)	
70-74 years	309(19.7)	67(21.6)	38(21.5)	
75-79 years	229(14.6)	50(16.1)	29(16.4)	
80 or older	252(16.1)	45(14.5)	20(11.3)	
Gender				
Men	630(40.3)	123(39.7)	73(41.2)	0.944
Women	935(59.7)	187(60.3)	104(58.8)	
Marital status				
Married	867(55.5)	146(47.1)	71(40.1)	<0.001
Divorced	108(6.9)	30(9.7)	16(9.0)	
Single	451(28.9)	105(33.9)	56(31.6)	
Widowed	136(8.7)	29(9.4)	34(19.2)	
Years of education				
0	416(26.6)	106(34.2)	57(32.2)	0.053
1-4	999(63.8)	179(57.7)	104(58.8)	
5-7	101(6.5)	15(4.8)	14(7.9)	
≥ 8	49(3.1)	10(3.2)	2(1.1)	
Income**				
≤R$622	1023(65.4)	220(71.0)	114(64.4)	0.144
>R$622	542(34.6)	90(29.0)	63(35.6)	
Retirement				
Yes	1159(74.1)	234(75.5)	125(70.6)	0.495
No	406(25.9)	76(24.5)	52(29.4)	
Caregiver				
Yes	335(21.4)	62(20.0)	34(19.2)	0.710
No	1230(78.6)	248(80.0)	143(80.8)	
Living arrangements				
Lives with spouse	851(55.5)	145(48.2)	69(39.4)	<0.001
Mixed arrangements	500(32.6)	116(38.5)	52(29.7)	
Lives alone	183(11.9)	40(13.3)	54(30.9)	
Number of children				
0	123(8.0)	36(11.6)	40(22.7)	<0.001
1-5	103(6.7)	24(7.7)	18(10.2)	
≥6	1321(85.4)	250(80.6)	118(67.0)	
Number of grandchildren				
0	238(15.5)	55(18.0)	52(29.9)	<0.001
1-5	120(7.8)	19(6.2)	15(8.6)	
≥6	1178(76.7)	232(75.8)	107(61.5)	
ADL				
Complete dependence	50(3.2)	18(5.8)	07(4.0)	0.144
Partial dependence	67(4.3)	14(4.5)	04(2.3)	
Independence	1448(92.5)	278(89.7)	166(93.8)	
IADL				
Complete dependence	161(10.3)	41(13.2)	15(8.5)	0.024
Partial dependence	285(18.2)	72(23.2)	26(14.7)	
Independence	1119(71.5)	197(63.5)	136(76.8)	
Cognitive deficit				
Yes	192(12.3)	46(14.8)	26(14.7)	0.350
No	1373(87.7)	264(85.2)	151(85.3)	

ADL - Activities of daily living; IADL - Instrumental activities of daily living; *chi-square test, **Brazilian minimum wage - R$622 ≈ US$300

ADL (OR=0.5; CI95%=0.3-1.0) and cognitive deficit (OR=0.7; CI95%=0.5-1.0) were associated with good family functioning inversely, that is, the more dependent and demented the elderly person was, the more dysfunctional the family was (table 2).

An inverse gradient was calculated between family functioning and number of children in both models. When the model was ruled by possible confusion factors, associations were reduced, but remained statistically significant. Having 1-5 children (OR = 0.3) and particularly no child (OR = 0.7) were factors associated with a high probability of family dysfunction.

Not living alone was an important protective factor for good family functioning, even after adjustments for socioeconomic conditions. Elderly people that lived with their spouse or other relatives showed a probability 1.9-fold (OR=1.9; CI95%=1.1-3.2) and 1.7-fold (OR=1.7; CI95%=1.2-2.3) higher to experience good family functioning (table 2).

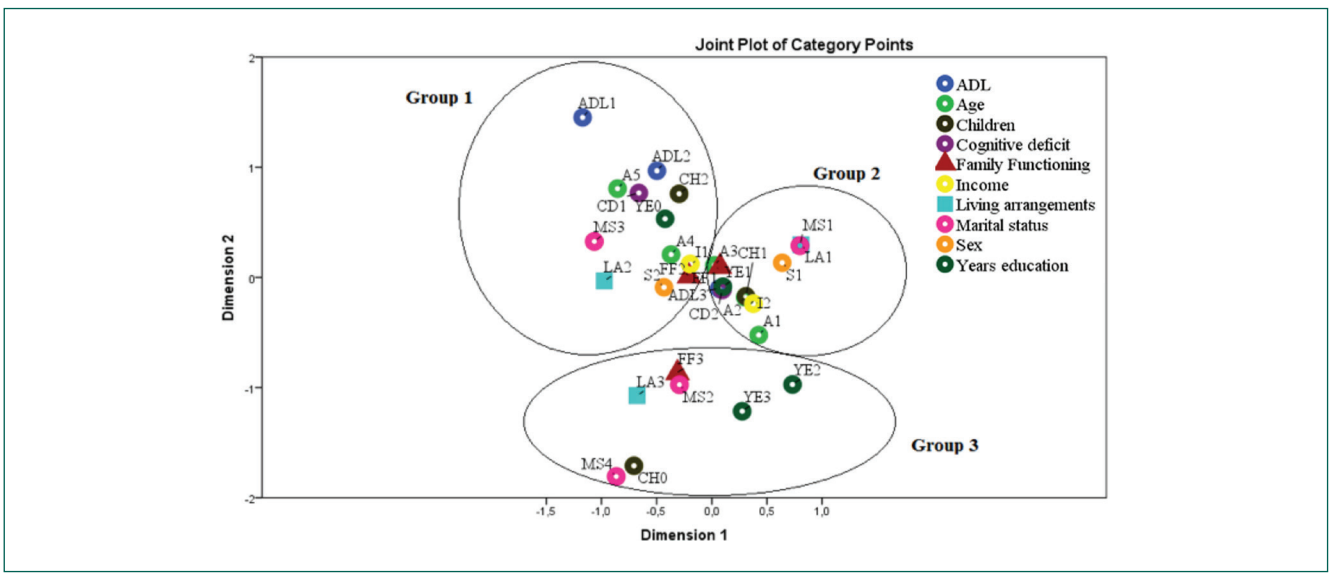
Correspondence analysis

Results of correspondence analysis are shown in figure 1, which displays graphically the categories of the variables in a two-dimensional plane. The plot shows that clusters were formed through spatial proximity of variables of interest.

Table 2. Results of the ordinal logistic regression of better family functioning of elderly people living in community in a Brazilian city

Variables	Raw model				Adjusted model*			
	OR	CI95%		p-value	OR	CI95%		p-value
		Initial	Final			Initial	Final	
Caregiver								
Yes	1.10	0.85	1.43	0.456	1.15	0.86	1.53	0.360
No	1.00				1.00			
Living arrangements								
Lives with spouse	2.26	1.70	3.01	0.000	1.87	1.09	3.20	0.023
Mixed arrangements	1.73	1.28	2.33	0.000	1.65	1.21	2.26	0.002
Lives alone	1.00				1.00			
Number of children								
0	0.42	0.31	0.57	0.000	0.34	0.18	0.61	0.000
1-5	0.66	0.46	0.96	0.032	0.74	0.55	1.00	0.046
≥6	1.00				1.00			
Number of grandchildren								
0	0.60	0.47	0.78	0.000	0.94	0.59	1.49	0.784
1-5	0.99	0.67	1.48	0.975	0.86	0.65	1.15	0.322
≥6	1.00				1.00			
ADL								
Complete dependency	0.69	0.41	1.14	0.143	0.53	0.29	0.99	0.046
Partial dependency	1.12	0.66	1.92	0.699	0.95	0.53	1.69	0.864
Independency	1.00				1.00			
IADL								
Complete dependency	0.92	0.65	1.30	0.642	1.02	0.63	1.64	0.940
Partial dependency	0.91	0.70	1.18	0.482	0.87	0.65	1.16	0.332
Independency	1.00				1.00			
Cognitive deficit								
Yes	0.73	0.55	0.99	0.040	0.74	0.54	1.02	0.045
No	1.00				1.00			

ADL - Activities of daily living; IADL - Instrumental activities of daily living; *adjusted by socioeconomic characteristics



Notes: A1 = 60-64 years old; A2 = 65-69 years old; A3 = 70-74 years old; A4 = 75-79 years old; A5 = 80 years old or older;.; ADL1 = complete dependency; ADL2 = partial dependency; ADL3 = independence; CD1 = presence of cognitive deficit; CD2 = no cognitive deficit; CH0 = no children; CH1 = 1-5 children; CH2 = ≥6 children; FF1 = good family functioning; FF2 = moderate family functioning; FF3 = poor family functioning; I1 = ≤ R$ 622; I2 = > R$ 622; LA1 = lives with spouse; LA2 = mixed arrangements; LA3 = lives alone; MS1 = married; MS2 = divorced; MS3 = single; MS4 = widowed; S1 = men; S2 = women; YE0 = illiterate; YE1 = 1-4 years of education; YE2 = 5-7 years of education; YE3 = ≥ 8 years of education.

Figure 1. Graphic representation of correspondence analysis

Three groups were identified, with distinct profiles, to explain the family functioning profile among elderly people in this sample. The first group (group 1) gathers single (MS3) women (S2) with moderate family functioning (FF2); these participants were older than 75 years old (A4 and A5), illiterate (YE0), with low income (I1), lived in mixed arrangements (LA2), had six or more children (CH2), presented dependency to execute ADL (ADL1 and ADL2) and cognitive deficit (CD1). Group 2 consists of married (MS1) young (A1, A2, A3) men (S1) that experienced good family functioning (FF1), were functionally independent (ADL3), showed no cognitive deficit (CD2), had 1-4 years of education (YE1), earned a higher monthly income (I2), lived with their spouse (LA1) and had 1-5 children (CH1). The last group (group 3) had elderly people from both genders with poor family functioning (FF3), were divorced (MS2) or widowed (MS4), had no children (CH0), lived alone (LA3) and had more years of education (YE2 and YE3) (figure 1).

Discussion

In general, the baseline of the AGEQOL study showed a profile similar to the ones reported in previous studies in Brazil[8,10,11,20] and other countries.[6,9,21] Retired widowed people with low income and few years of education predominated in the sample, which points to an important phenomenon in populational aging: greater longevity among women, also denominated feminization. This is a tendency worldwide and has been confirmed by other studies.[21-23] The findings of the present investigation reveal that living with a spouse and in mixed arrangements are factors that help to achieve good family functioning. This can be explained by a progressive increase in life expectancy and by the existence of long-lasting marital relationships in this age group.[6,7,22] Conversely, other studies indicate that mixed or multigenerational arrangements may have a negative impact on the elderly population.[4,11] However, living alone poses a higher chance to experience loneliness, social isolation and depression. Elderly people that live by themselves have a higher risk to develop sudden health problems and to fall.

Domestic planning to keep independency with safety and to introduce behavioral changes to increase safety requires support and participation from family and friends. The nursing role in this context is crucial, mainly in the training of families that assist these elderly people.[22-24]

The results revealed that cognitive deficit, functional dependency and absence of children are risk factors for family dysfunction. Lack of autonomy, several types of dementia and deficient social support impair the quality of life of elderly people. It is believed that the presence of relatives increases safety, given that they can help in daily activities and contribute to the social development of the elderly people, who become physically and cognitively more active when stimulated. Low self-esteem of the elderly people directly affects family life.[3,4,9,23]

The present study is original and innovative, because it presents information about the family functioning profile in a representative sample of elderly people from both genders. To achieve that, correspondence analysis was used to define groups that explain different family functioning profiles, although it did not provide measurements of association among variables. When the model is reliable, there is a symmetry in the distribution of variables regarding the outcome, as seen in the present study, given that the three categories of family functioning assumed distinct areas in figure 1.

Divorced and widowed elderly people with no children living alone had poor family functioning (group 1). This can be probably explained by the absence of relatives or a support network, which means these elderly people have to be responsible for their care and daily routine. In addition, it is assumed that assistance from families tends to fail in cases in which elderly people do not show signs of functional dependency.[6]

Family support is essential in the life of elderly people, because it helps keep well-being and the quality of their social relationships, especially for those that need assistance to perform their daily ac-

tivities. However, this care must be qualified.[7] This situation reflects on life and health conditions directly, because care to more dependent elderly people is usually given by relatives, who assume this task as an obligation and because of relatedness. Wives, daughters and granddaughters are the main caregivers and perform this function concurrently with household chores and the care to other relatives. This overload generates stress and interferes with their health. Despite a few changes in this profile due to the insertion of women in the marketplace, they are still the main subjects responsible for taking care of elderly people in the family structure.[5,6,22,23]

Studies on gender differences of caregivers assume great importance in this context. A cross-sectional study carried out with elderly people living in Ribeirão Preto, state of São Paulo, showed that most caregivers were females (75%), married (58.3%) and 45% were children of the people that needed care.[24] Another investigation with 533 caregivers explored the responsibility of decision-making related to the care to dependent elderly people, which involved three to four tasks out of the eight ADL. Most caregivers were relatively healthy and felt a strong obligation to assist their relative, as a work that any member of the family should execute.[21] Nevertheless, a systematic review revealed that women have higher levels of depression and lower levels of subjective well-being and physical health. This overload can be attributed to the type of care given by women, which demands more hours in cases of behavioral or dependency issues.[23]

Such situation presumes the need to include in the care schedule a focus on the pair elderly user × caregiving family as a care unit of the healthcare team, mainly of the nurse in charge of home care.[23]

The group with moderate family functioning consisted of women with worse social and health conditions (group 2), which can be considered a consequence of age feminization; most were single or widowed, had no children and grandchildren, low income and few years of education. They must have served as caregivers in their families in the past and probably do not have proper relationships with the few relatives left. A fact that has been interfering with recent family arrangements and support to elderly members is the moving out of some people for reasons such as divorce, need to study or build a family and the change of women's role in society. Families tend to be smaller, but elderly people are around longer. Such family structure has a vulnerable stability and has been demanding new arrangements.[8,10,11]

Family relationships during aging are different for both genders. Men tend to marry again, whereas women usually live alone and stay widowed. There is also a higher probability to have a lower income and live by themselves among women.[25]

Another relevant finding related to this group was the poor education of 28.8% of the women, a consequence of the social inequality experienced by these participants. In the present days, they have high life expectancy (73.9 years) and live in a city with good social indicators and an illiteracy rate of 24%, a number similar to national and Latin American data.[1,2]

Poverty conditions are risk and vulnerability factors for the elderly population, especially in countries with significant social inequalities, such as Brazil.[1] Poverty and poor education, particularly, can interfere with the lifestyle of this population share and prevent it to have healthy habits.[1,11,22,23]

The group that showed good family functioning (group 3) encompassed men with better social and health conditions living with their spouse, probably because of gender differences regarding marital behavior in elderly people. Most widowers marry again, whereas widows live alone and do not engage in a new marital relationship. When necessary, these men can count on the care from their wives, who are usually elderly too, but struggle to assist their partners in detriment of their own health. It is paramount that health professionals and society in general understand questions related to aging, family dynamics and the social context of elderly people so they can receive proper care.[9,12,21,26,27]

The increase in the number of elderly people with functional limitations results from growing chronicity and longevity. Consequently, family and healthcare services' support must be continuous and span the last years of life. It is known that intergenerational relationships benefit all the members of the family; however, even with suitable family sup-

port, difficulties may emerge regarding retirement, decreased income and development of dependency and may impact the whole family, bringing positive or negative consequences in social life.[5] Problems of elderly people and of those that live around them are considered stressful factors that turn aging into a complex and heterogeneous experience.[1,5,22]

Home, the natural environment of people, is seen as an important point to pay attention to when it comes to guaranteeing the maintenance of elderly people's identity and their capacity to live around their relatives. It is the place where people of any age that depend on care can keep stable and with the best quality of life possible, as long as there is professional support in the family context, including healthcare services and team, focusing mainly on primary health care.[23]

The results of the present study correspond to the reference value of the AGEQOL investigation. The cross-sectional design makes it difficult to evaluate the direction of the relations among variables, and it is possible to reverse causality; therefore, it is early to determine whether there is a temporal link among these variables. As they were self-reported, they were directly influenced by the memory of the interviewed people, their physical and psychological characteristics and contextual and cultural aspects of each populational group.

The investigation also unveils a profile of elderly people whose characteristics are typical of residents of Brazilian communities. Feminization, widely observed in Brazil,[1] was corroborated by the results and associated with low income and poor education; in addition, most researched women were older, widowed, divorced or single and lived alone or in mixed home arrangements. Such condition represents a risk and vulnerability factor to social isolation, lack of safety and family care and threatens proper living. Older men that had children, lived with their spouse and had no physical limitation for activities of daily living showed good family functioning. However, the assignments "moderate" and "poor" originated in groups with the oldest people, usually women with inappropriate social and health conditions, living by themselves or in living arrangements that included members of the third or fourth generation after them. These findings are a relevant basis for family nurses that work in primary care and family health programs. Aging of the population brings with it the need to adopt practices that promote better quality of life for elderly people, and this involves family life and care.

Conclusion

The results of the present study provide a basis for the development of new investigations about family dynamics and its impact on the life and health of elderly people. The study reveals the need to understand aging as a process that must involve the individual, family and society. The commitment of the multiprofessional team to achieve comprehensive care must be extended to all the people responsible for care, including the elderly people and their family necessarily. Primary health care and the professionals that work in it play a fundamental role in detecting problems and evaluating the life and health conditions of these people to develop actions to improve their quality of life and well-being.

Collaborations

Campos ACV, Rezende GP, Ferreira EF, Vargas AMD and Gonçalves LHT contributed with the conception of the project, data analysis and interpretation, writing of the manuscript, relevant critical review of its intellectual content and final approval of the version to be published.

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