The household arrangements, physical and psychological health of the elderly and their satisfaction with family relationships

Dóris Firmino Rabelo[1]
Anita Liberalesso Neri[2]

Abstract

Objective: The aim of the present study was to analyze the relationship between family configuration, the physical and psychological health conditions of the elderly and their satisfaction with family relationships. *Methods:* A study was undertaken of 134 older people from the city of Santo Antônio de Jesus, Bahia, without cognitive deficits suggestive of dementia. Cluster analysis was performed by the partition method (three groups). *Results:* The majority of the elderly persons were heads of household (72.4%), who contributed to the financial upkeep of their family (total: 49.2%; partially: 44%), lived in multigenerational arrangements (64.9%), had good physical functionality, did not suffer from depression (82.9%) or anxiety (76.9%) and judged their family to have good functionality (85.8%). The variables that most contributed to the formation of clusters were basic activities of daily living (R^2=0.725) and family functionality (R^2=0.757). Clusters were: 1) elderly persons who needed help to perform instrumental activities of daily living, who suffered from anxiety and were dissatisfied with family relationships; 2) elderly individuals who were dependent for the performance of activities of daily living, who suffered from anxiety and were satisfied with family relationships; 3) independent elderly persons who were satisfied with family relationships. *Conclusions:* There were reciprocal relationships between the satisfaction of the elderly individuals with their family relationships and their levels of physical functionality and mental health.

Key words: Health of the Elderly; Family Characteristics; Family Health.

[1] Universidade Federal do Recôncavo da Bahia, Centro de Ciências da Saúde, Curso de Psicologia. Santo Antônio de Jesus, BA, Brasil.

[2] Universidade Estadual de Campinas, Faculdade de Ciências Médicas, Programa de Pós-graduação em Gerontologia. São Paulo, SP, Brasil.

Correspondence
Dóris Firmino Rabelo
E-mail: drisrabelo@yahoo.com.br

INTRODUCTION

The family is the main source of emotional, instrumental, financial and informative support for elderly persons. The exchanges that take place within the family may take the form of alliances, solidarity and inclusion, or conflict, domination and exclusion. They are organized around the roles given to the elderly and the established hierarchy among the components of the family, as relationship patterns are created throughout the life of the family.[1] Living arrangements are an important indicator of these processes, and are structured around specific physical and social environments. They relate to the exchange of support or the intergenerational transfer of resources that predominate in each family,[2] which have a significant effect on the status and welfare of the elderly. The bargaining power involved in tasks and roles, considering the needs of the elderly and other family members, plays an important role in family functioning.[3]

The functionality of the family when meeting the needs of its members largely resides in its ability to channel internal and external resources to solve material, instrumental and emotional problems, and to share decisions, responsibilities, guidance and mutual support.[4] The fact that a family functions harmoniously influences responses to the demands of the elderly and means the essential support functions required are provided. In such a family protective factors emerge and are used against various kinds of stressors.[3]

Family support can have a positive effect on the physical and mental health of older people, as it encourages coping, strengthens the immune system and contributes to a sense of control, psychological well-being and satisfaction with life.[4-6] Population studies have shown that a perception of supportive relationships predicts health, mortality and functionality outcomes more robustly than objective measures.[7]

Satisfaction with family relationships reflects the strength of the emotional bond between family members, the adaptability of the family unit to stress, and the sharing of affection, esteem and gratification. It involves receiving care when needed, reciprocity in family communication and resolve capacity, the freedom to change roles and to reach maturity or emotional development, and time-sharing among family members. It acts as a moderator of the effects of events that are stressful for mental health[8] and is the most important factor in reducing the vulnerability of adults and elderly persons to depression.[9] As an indicator of family functionality, it allows identification of the extent to which the family is able to deal with crisis situations realistically and appropriately, and to comply with and harmonize its essential functions,[10] such as the adaptability, partnership and development of its members, affection and resolve capacity.[11] The absence of these elements suggests family dysfunction.

Studies that evaluate the satisfaction of elderly persons with family relationships have shown that, in general, such individuals report a high satisfaction with this aspect of their living experiences.[12-15] Among elderly persons who were found to be less satisfied with family relationships are women,[14] as they invest more in relationships, are more emotionally involved and more demanding when it comes to care, according to gender patterns; those living alone or in mixed living arrangements where there are no other family members[13] and those who do not have positive expectations about being cared for by a family member.[12,16] Family impairment makes it difficult to provide the necessary care for the elderly, especially in cases where physical and psychological health problems result in dependency, and is a risk factor for material, social, psychological and emotional deprivation.[17,18] Dependence can lead to the elderly person losing his or her role within the family as well as a reduction of his or her authority and sense of control, and in the family, emotional disorganization, anticipated grief, overload of the caregiver role and distance in relationships.[14]

In conditions of low socioeconomic status the predominance of cohabitation of family members

from several generations and the exchanges of help descending from the older to the younger members of the family is observed. Both phenomena can be seen as survival strategies.[2] Families living in situations of greater poverty are most affected by the cumulative experience of stress. In these families, in general, the elderly are burdened by the responsibilities of caring for children and grandchildren.

Identifying the satisfaction of elderly persons with family relationships is important to understanding how families organize to provide for their needs and how they are able to deal with crisis situations. Furthermore, investigating whether the presence of disease is a complication capable of affecting satisfaction with such relationships can support the development of more effective strategies of health promotion, help to clarify the impact of different physical and psychological conditions on the family, and support programs targeted at disadvantaged communities.

Based on the self-reports of elderly men and women, the aim of this study was to investigate the relationship between family structure, the conditions of physical and psychological health of older people, and their satisfaction with family relationships.

METHOD

The present study took place in Santo Antônio de Jesus, in the state of Bahia, Brazil, a town with an important role in the health service sector of the Recôncavo Baiano region. With a GDP per capita of R$8,142.94 (UNDP, 2010) and a Municipal Level Human Development Index of 0.7 (IBGE, 2008), the town has a total population of 90,985 inhabitants, 9,149 or 10% of whom are aged 60 or older. The town has 20 Basic Health Units (BHU) located in its urban area. Of these, the Unit with the largest number of registered elderly persons, corresponding to 16.8% of the elderly residents of the town and 14.5% of the total number of people registered with the BHU, was selected.

Participants

The study was based on a representative probability sample of households with elderly members enrolled at the largest Basic Health Unit (BHU) in the city of Santo Antonio de Jesus, Bahia. According to data from the 2010 Primary Care Information System, this unit had 2,754 registered families, giving a total of 9,234 people, of whom 1,344 were aged 60 and over. The sample size was set at 134 elderly persons for a confidence level of 90% and a 5% margin of error.

A total of 134 elderly persons, aged between 60 and 95 years, with a mean age of 72 (±8) years, participated in the study. The majority were female (77.6%), of Afro-Brazilian descent (29.9% black and 38.8% brown-skinned), had a family income up to two minimum wages (75.4%), a low educational level (35.1% were illiterate and 50% had not completed primary education), retired (75.4%) or pensioners (14.9%), and owned the house in which they lived (79.9%).

Procedures

With the help of community health workers, the identification and registration of households with elderly persons located in the 21 micro-areas covered by the selected BHU was carried out. Among households identified as having elderly members, 134 were randomly drawn, and were visited for recruitment purposes. When the households could not be located, or when the elderly persons were not present due to having travelled, death, illness, hospitalization or change of address, or when they did not meet the eligibility and inclusion criteria, another household on the same street, previously registered as containing an elderly member, was sought. The community health worker and individuals in each micro-area helped to identify the alternative household.

Recruiters were instructed to consider the following eligibility criteria: (1) aged under than 60 years; (2) permanent residence in the region and

in the household; (3) understand the instructions and be interested in participating in the study. The exclusion criteria were: (1) possess a serious auditory or visual deficit; (2) have difficulties in verbal expression and understanding; (3) be temporarily or permanently bedridden. Another inclusion criteria adopted was achieving the cut-off score[19] for each school level minus one standard deviation in the Mini Mental State Examination (MMSE), a dementia screening test commonly used in population studies.

A total of 207 households with elderly members were visited, seven of which (3.4%) did not meet one or more of the eligibility criteria. A total of 66 older adults (31.9%) scored below the MMSE cut-off score, and were therefore excluded. In each household, all elderly persons underwent a selection interview before participating in the study and the choice of participant was based on the highest MMSE scores. It was requested of the elderly persons that the interview took place in a part of the house that provided privacy and silence, avoiding interruption by others. Data collection took two to three two-hour visits on average. The period of data collection was from May to December 2011.

Variables and instruments

1. *Socio-demographic characteristics:* Age (classified into two groups: 60-74 years and 75 years or older) and gender (female x male) were evaluated.

2. *Family Configuration:*

a) Living arrangements: Based on the question "Who do you live with?" the answers were grouped into the categories: alone; with a spouse or partner; with a spouse and offspring; with offspring; other types of arrangement.

b) Head of household: Based on the question "Who is the head of household", the answers were classified as yes or no depending on whether or not the elderly person was the head of household.

c) Financial contribution of the elderly person to family upkeep (a question with the possible answers full, partial or none).

3. *Physical health conditions:*

a) Questionnaire of diseases and self-reported symptoms and signs.[20] Chronic diseases diagnosed by a medical professional in the last year and self-observed symptoms and signs, both grouped into the categories none; 1 to 2; 3 or more.

b) Independence in Activities of Daily Living Index.[21] A scale of six items with three possible answers on help required (none, partial or total) for bathing, dressing, personal hygiene, transferring, toilet training and feeding. Responses were grouped into: independent, partial dependence and total dependence.

c) Performance of instrumental activities of daily living.[22] A scale with three possible answers on help required (none, partial or total) to make phone calls, use of transportation, shop, cook, carry out household chores, manage medication and money. Responses were grouped into: independent, partial dependence and total dependence.

d) Social involvement: assessment was based on self-reported participation in physical activities, at a day center, and in community and religious activities. Data was categorized by median, to a lesser or greater degree of social involvement.

4. *Psychological health conditions:*

a) The Geriatric Depression Scale[23] with 15 yes x no questions was used to identify how the elderly persons had felt during the previous week, relating to dysphoric

moods. This scale screens for depression, with a cut-off score ≥6 for mild depression and ≥11 for serious depression. The categories were subsequently combined for dichotomous analysis (yes vs. no).

b) Beck Anxiety Inventory - BAI[24] an index with 21 items asking how the individual had felt during the previous week in relation to a number of common symptoms of anxiety. Each item has four possible answers. The cutoff points are: mild anxiety ≥11, moderate anxiety ≥20, and severe anxiety ≥31, out of a score ranging from 1 to 63 points. The mild, moderate or severe categories were subsequently combined for dichotomous analysis (yes vs. no).

5. Family APGAR.[11] Evaluates satisfaction with family relationships in five areas: adaptability, partnership, growth, affection and resolve. There are five questions with the possible responses 0 (never), 1 (sometimes) or 2 (always) being worth four points. Scores 0-4 indicate high family dysfunction, 5 and 6, moderate family dysfunction, and 7-10 good family functioning. The categories high and moderate family dysfunction X good family functioning were subsequently combined for dichotomous analysis.

Data analysis

In order to study the profile of the sample, cluster analysis was performed using the partition method, establishing the *a priori* creation of three clusters. Comparative analysis of the composition of the clusters obtained was made using the chi-square and Fisher's exact tests. The significance level adopted for the statistical tests was 5%.

Ethical aspects

The present study formed part of the "Family Development and the elderly: social support network, family dynamics and intergenerational cohabitation" research project, which aimed to investigate the functioning of families with elderly members and their network of informal and formal support. The study was approved by the Research Ethics Committee of the Faculdade Maria Milza (FAMAM), in the municipality of Cruz das Almas, Bahia (registered under nº 034/2011), in accordance with Resolution nº 196/96 of the National Health Council, of the Department of Health. All elderly persons signed a Term of Free and Informed Consent, and all had the right to leave the study at any time. Those who were excluded based on the MMSE score were told that the study would use alternative forms of data collection and thanked for their participation.

RESULTS

The majority of participants (66.4%) were elderly persons aged 60 to 74 years, heads of households (72.4%), who contributed to all (49.2%) or made a partial contribution (44%) to the upkeep of the family. The majority cohabited with relatives from various generations, with 41% living with offspring, 23.9% with their spouse or offspring, 17.9% alone, 9.7% in other types of arrangements and 7.5% with their spouse only. The majority reported having one or two illnesses (52.2%), three or more signs or symptoms (59.7%), low social involvement (65.7%) and independence in basic (96.3%) and instrumental (58.2%) activities of daily living. In terms of psychological conditions, 82.9% of the elderly individuals did not display depressive symptoms and 76.9% did not reveal signs of suffering from anxiety.

The elderly individuals reported satisfaction with family relationships in terms of adaptability (81.3%), partnership (82.8%), growth (81.3%), affection (80.6%) and resolve (84.3%), indicating that the vast majority (85.8%) believed that their family possessed good functionality. A total of 14.2% of the elderly persons reported family dysfunction.

The size of the clusters containing the variables can be seen in Table 1. The resulting structure contains an R^2 of 0.264, explaining 26.4% of the variability in the data. The variables that contributed most to the formation of groups (variables with the highest R^2) were basic activities of daily living (R^2 = 0.725) and family functioning (R^2 = 0.757), obtained from the final evaluation of satisfaction with family relationships scores (table 2).

The composition of clusters or groups was as follows: Group 1 (n =24; 17.9% of the sample): predominantly made up of elderly persons with independence in basic activities of daily living, partial or complete independence in instrumental activities of daily living, and anxiety, who were dissatisfied with adaptability, partnership, growth, affection, and resolve capacity, and had a perception of family dysfunction. Group 2 (n=2, 1.5% of the sample): was predominantly made up of elderly persons with total dependence in basic and instrumental activities of daily living, who suffered from anxiety, were satisfied with adaptability, partnership, growth and affection, and who had a perception of good family functioning. Group 3 (n=108; 80.6% of the sample) was predominantly made up of elderly persons with independence in basic and instrumental activities of daily living, who did not suffer from anxiety, were satisfied with adaptability, partnership, growth, affection and resolve capacity and who perceived good family functioning.

Table 1. Cluster size of analysis of variables age, gender, family structure, physical and psychological health and satisfaction with family relationships. Santo Antônio de Jesus, Bahia, 2011.

Groups	Frequency	RMS^2 (standard deviation)	Maximum distance from center observed	Nearest cluster	Distance between the centroids of the group
1	24	1.0404	5.5541	3	5.1185
2	2	0.8287	2.4860	3	7.7766
3	108	0.8218	6.3436	1	5.1185

Table 2. Cluster analysis results according to age, gender, physical and psychological health conditions, family configuration and satisfaction with family relationships. Santo Antônio de Jesus, Bahia, 2011.

Variables	Standard deviation	Coefficient of determination	RSQ/(1-RSQ)
Gender	1.00276	0.009595	0.009688
Age	0.98545	0.043499	0.045477
Living arrangement	**0.99460**	0.025651	0.026326
Head of household	1.00549	0.004192	0.004210
Contribution to family upkeep	1.00715	0.000894	0.000895
Self-reported diseases	0.99423	0.026372	0.027086
Self-reported signs and symptoms	1.00108	0.012915	0.013084
Social involvement	0.99883	0.017338	0.017644
BADLs	0.52811	**0.725296**	2.640277
IADLs	0.97437	0.064883	0.069385
Depression	0.99525	0.024369	0.024977
Anxiety	**0.97072**	0.071873	0.077439
Adaptability	0.69320	**0.526697**	1.112813
Partnership	**0.57711**	**0.671955**	2.048358
Growth	**0.63599**	**0.601597**	1.510021
Affection	0.59851	**0.647175**	1.834269
Resolve capacity	0.69292	**0.527075**	1.114502
Family functioning	0.49645	**0.757246**	3.119403
Total	0.86421	**0.264368**	0.359375

Table 3 shows the comparative data of the distribution of the sample for family configuration, the conditions of physical and psychological health of older people and their satisfaction with family relationships. The groups had equal distribution for age, gender, living arrangements, head of household status, contribution to the upkeep of the family, number of illnesses and signs and symptoms, and social involvement.

There was a higher percentage of elderly persons aged between 60 and 74 years in Groups 1 and 3. In Group 2, both participants were aged 75 years or older. In all three groups female heads of household on whose resources the family depended totally or partially predominated. Half of the elderly persons in Group 2 lived alone, an arrangement considered less desirable, while the other half lived with spouse and offspring. In Groups 1 and 3, the most common arrangements involved cohabiting with offspring (with or without the presence of a spouse). Most elderly persons in the three groups scored below the median in social involvement and did not score above the cutoff of the Geriatric Depression Scale. Most elderly persons in Groups 1 and 3 reported having one or two diseases, three or more signs and symptoms and independence in basic activities of daily living. Group 2 had elderly persons with three or more diseases, half of whom reported one to two signs and symptoms and the other half of whom described three or more. The elderly persons in this group had total dependence for basic and instrumental activities of daily living. In Group 1, the majority of elderly persons were divided between partial dependence or independence for the performance of instrumental activities of daily living. The highest percentage score for anxiety occurred in Groups 1 and 2. Results in the area of family functioning indicated that groups 2 and 3 were satisfied with family relationships such as adaptability, partnership, growth, affection and resolve capacity, but the opposite was found for Group 1. All of the elderly persons in Groups 2 and 3 showed good family functioning, while in Group 1, approximately 80% described family dysfunction.

Table 3. Frequency of elderly persons in the three groups obtained through multivariate analysis of the variables age, gender, family configuration, physical and psychological health and satisfaction with family relationships. Santo Antônio de Jesus, Bahia, 2011.

Variables	Categories	Total sample		Clusters (%)			
		n	%	1^{G1}	2^{G2}	3^{G3}	*p*-value*
Age	60-74 years	89	66.4	79.2	0	64.8	0.053
	≥75 years	45	33.6	20.8	100.0	35.2	
Gender	Female	104	77.6	70.8	100.0	78.7	0.654
	Male	30	22.4	29.2	0	21.3	
Living arrangements	Alone	24	17.9	29.2	50.0	14.8	0.112
	With spouse/partner	10	7.5	4.1	0	8.3	
	With spouse and offspring	32	23.9	16.7	50.0	25.0	
	With offspring	55	41.0	29.2	0	44.5	
	Others	13	9.7	20.8	0	7.4	
Head of household	Yes	97	72.4	70.8	50.0	73.2	0.639
	No	37	27.6	29.2	50.0	26.8	

Variables	Categories	Total sample		Clusters (%)			
		n	%	1[G1]	2[G2]	3[G3]	*p*-value*
Contribution to family upkeep	Total	66	49.3	54.2	50.0	48.1	0.878
	Partial	59	44.0	37.5	50.0	45.4	
	None	09	6.7	8.3	0	6.5	
Social involvement	Less	88	65.7	75.0	100.0	63.0	0.371
	More	46	34.3	25.0	0	37.0	
Self-reported diseases	None	18	13.4	12.5	0	13.9	0.383
	1-2	70	52.3	45.8	0	54.6	
	≥3	46	34.3	41.7	100.0	31.5	
Self-reported signs and symptoms	None	12	9.0	4.2	0	10.2	0.664
	1-2	42	31.3	25.0	50.0	32.4	
	≥3	80	59.7	70.8	50.0	57.4	
BADLs	Independent	129	**96.3**	**95.8**	0	**98.2**	**<0.001**
	Partial dependency	03	2.2	4.2	0	1.8	
	Dependent	02	1.5	0	**100.0**	0	
IADLs	Total dependency	08	6.0	12.5	**100.0**	2.8	**0.001**
	Partial dependency	48	35.8	**41.7**	0	35.2	
	Independence	78	58.2	**45.8**	0	**62.0**	
Depression	Yes	23	17.2	29.2	0	14.8	0.224
	No	111	82.8	70.8	100.0	85.2	
Anxiety	Yes	31	23.1	**45.8**	**50.0**	17.6	**0.005**
	No	103	76.9	54.2	50.0	**82.4**	
Adaptability	Dissatisfied	25	18.7	**79.2**	0	5.6	**<0.001**
	Satisfied	109	81.3	20.8	**100.0**	**94.4**	
Partnership	Dissatisfied	23	17.2	**83.3**	0	2.8	**<0.001**
	Satisfied	111	82.8	16.7	**100.0**	**97.2**	
Growth	Dissatisfied	25	18.7	**83.3**	0	4.6	**<0.001**
	Satisfied	109	81.3	16.7	**100.0**	**95.4**	
Affection	Dissatisfied	26	19.4	**87.5**	0	4.6	**<0.001**
	Satisfied	108	80.6	12.5	**100.0**	**95.4**	
Resolve capacity	Dissatisfied	21	15.7	**70.8**	50.0	2.8	**<0.001**
	Satisfied	113	84.3	29.2	50.0	**97.2**	
Satisfaction with family dynamic	Family dysfunction	19	14.2	**79.2**	0	0	**<0.001**
	Good functioning	115	85.8	20.8	**100.0**	**100.0**	

G1= elderly persons in need of assistance when performing instrumental activities of daily living, with anxiety and dissatisfied with family relationships; G2 = elderly persons dependent for the performance of activities of daily living, with anxiety and satisfied with family relationships; G3 = fully independent elderly persons, satisfied with family relationships; *Fisher's exact test, significant difference of $p \leq 0.05$.

DISCUSSION

In general, it was observed that most elderly persons were heads of households, on whose resources the family depended totally or partially, and who cohabited with offspring, with or without the presence of a spouse. These are important indicators of the roles and functions of the elderly and the transfer of resources in these families. Multigenerational family life encompasses benefits such as having more people available to provide support, but also includes problems such as conflicts of interest regarding the distribution of family resources.[4] In the Brazilian context, the financial, emotional and instrumental support offered by the elderly is crucial in the lives of younger family members.[2]

The first group was formed mainly of elderly persons dissatisfied with family relationships in all the domains evaluated, indicating a strong sense of family dysfunction; elderly persons who were independent in the performance of basic activities of daily living; who were independent or partially dependent when performing instrumental activities of daily living; and who suffered from anxiety. The quality of family relationships and patterns of interaction are related to the emergence and course of anxiety. Interactions that generate positive emotions play an important role in the construction and maintenance of high quality bonds, as people attribute positive values to their social partners. Negative emotions imply negative evaluations, as they are sources of information about the value of relationships.[25] Negative interactions may indicate difficulties in the balance between the needs of the individual and those of the family unit, resulting in increased anxiety among members and affecting family functioning. Individuals with anxiety tend to have less control over negative emotions, a fact which is associated with the inability to manage and regulate intense emotional experiences.[26] The main symptoms of anxiety, such as fear, excessive stress and emotional instability, are more common among elderly persons with poor psychosocial functioning, with fewer social skills and who are most in need of emotional support.[27] Elderly persons with unmet needs, living in strained and dysfunctional environments, are strong candidates to suffer symptoms of anxiety leading to a worsening of functional dependence and social restriction.[28,29]

The second group was formed of only two elderly individuals, who were totally dependent for basic and instrumental activities of daily living and suffered from anxiety. It is probable that these elderly persons required care, a situation that involves the preparation of individual and family emotional processes as well as the reorganization of roles among family members.[12,17] In this group, anxiety seems to say more about functional incapacity than the quality of family relationships, as the elderly persons reported being satisfied with almost all the areas of family functioning assessed (adaptability, partnership, growth and affection).

Satisfaction with family relationships reflects the perception that sufficient support is being received, in compliance with normative expectations about the capacity of the family to provide care, or at least that the need to provide such care is not the source of an intolerable level of conflict. While Brazilian studies have indicated that dependent elderly persons have a more negative assessment of family functioning,[12,18] the results of the present study suggest the reverse: dependent elderly persons reported successful family functioning. Positive reports of the family and high satisfaction with its functioning and the support it offers to elderly relatives can be partly determined by the need for such elderly persons to maintain their self-esteem, as a harmonious family and supportive offspring are largely attributed to the qualities of the elderly persons as parents, and their fulfillment of social roles and duties in raising emotionally balanced, productive and grateful children.

While the loss of dependence in an elderly relative is a transition event that generates family stress, members are generally able to face and overcome the process. Stresses and strains can lead to momentary dysfunctionality, signaling a new, more complex integration.[3] When complying with these new demands the family

system must be balanced within an interpersonal structure that involves roles, rules, functions and specific needs. The degree of satisfaction of family members with family relationships is an important indicator of family functioning as it reflects not only objective aspects of such relationships, but also the values, expectations and beliefs internalized by its members.[16]

The third group represented the majority of the sample and was formed predominantly of elderly persons who were independent in the performance of basic and instrumental activities of daily living, did not suffer from anxiety, were satisfied with their family relationships for all the domains evaluated and reported living with a family with a good level of functionality. Feelings of emotional closeness act as shock absorbers of anxiety[30] and social support has a protective effect on the emotional well-being of elderly persons.[31] This data is an indicator of a successful association between good physical and psychological health and family functioning, which increases the possibility that the condition of the elderly individuals is not aggravated by tensions and increases the possibility that they remain independent. Harmonious family relationships have been identified in several studies as important elements for successful aging and quality of life in old age.[4-6,32]

In the present study, the variability in age, gender, living arrangements, head of household status, contribution to family upkeep, social involvement, number and signs and symptoms of diseases, and depressive symptoms was not sufficient for these factors to appear in the formation of the three groups. However, it is important to remember that old age, number of chronic diseases and level of social involvement are risk factors for functional dependence,[33,34] which affects family functioning. Women live longer and are more likely to live in dysfunctional families[14] than men. Family configuration is an important indicator of the physical and social environment of the elderly, intergenerational exchanges and family functioning.

The variables that contributed most to the formation of the groups, or in other words those that had a more robust relationship with the rest of the variables, were performance of basic activities of daily life and family functioning. Impairment of the performance of basic activities of daily living determines the need to be cared for and affects the relationships and care potential of the family, which needs to be reorganized to meet the needs of the elderly member.

Family functioning is complex and dynamic and as a result, the evaluation of family functionality only through satisfaction with family relationships may be considered a limitation of the present study.

CONCLUSIONS

A family can provide networks of sociability and solidarity. The transfer of affection that takes place within it forms support networks between the generations. These resources are increasingly necessary to deal with the health, social and economic challenges facing the family. More successful family functioning is associated with a better quality of life among elderly persons, suggesting that family interactions, organization and family support are of great relevance.

While cause and effect observations cannot be made about the descriptive data of the present study, a number of interesting associations were observed. Perhaps the most important of these is the relationship between the positive or negative evaluations the elderly persons had of their families and the satisfaction they felt towards the same, and the level of physical and mental health and independence of such individuals. Based on literature and clinical observations, it is clear that there are reciprocal relationships between these variables.

One of the most important challenges is to prepare professionals to work with families, especially those in situations where there are greater health, social, structural or internal dynamic risks. The data presented in this study is of special interest as it describes a Brazilian low socioeconomic social context, with a prevalence of family members of several generations cohabiting,

and the exchange of support between older and younger family members. This data provides important indications about the association of the variables of interest in an analysis rarely performed in this field, and emphasizes the need to increase knowledge about how families organize themselves to support their elderly members, and how they feel about this process.

REFERENCES

1. Minuchin S. Família, funcionamento e tratamento. Porto Alegre: Artmed; 1982.
2. Camarano AA, Kanso S, Mello JL, Pasinato MT. Famílias: espaços de compartilhamento de recursos e vulnerabilidades. In: Camarano AA, organizadora. Os novos idosos brasileiros: muito além dos 60? Rio de janeiro: IPEA; 2004. p. 137-67.
3. Piercy KW, editor. Working with aging families. New York: W.W. Norton & Company; 2010. Chapter 2, Understanding family dynamics; p. 41-72.
4. Mota FRN, Oliveira ET, Marques MB, Bessa MEP, Leite BMB, Silva MJ. Família e redes sociais de apoio para o atendimento das demandas de saúde do idoso. Esc Anna Nery Rev Enferm 2010;14(4):833-8.
5. Fiorillo D, Sabatini F. Quality and quantity: the role of social interactions in self-reported individual health. Soc Sci Med 2011;73(11):1644-52.
6. Alvarenga MRM, Oliveira MAC, Domingues MAR, Amendola F, Faccenda O. Rede de suporte social do idoso atendido por equipes de Saúde da Família. Ciênc Saúde Coletiva 2011;16(5):2603-11.
7. Pelcastre-Villafuerte BE, Treviño-Siller S, González-Vázquez T, Márquez-Serrano M. Apoyo social y condiciones de vida de adultos mayores que viven en la pobreza urbana en México. Cad Saúde Pública 2011;27(3):460-70.
8. Hyde LW, Gorka A, Manuck SB, Hariri AR. Perceived social support moderates the link between threat-related amygdale reactivity and trait anxiety. Neuropsychologia 2011;49(4):651-56.
9. Pettit JW, Roberts RE, Lewinsohn PM, Seeley JR, Yaroslavsky I. Developmental relations between perceived social support and depressive symptoms through emerging adulthood: blood Is thicker than water. J Fam Psychol 2011;25(1):127-36.
10. Rodríguez-Sánchez E, Pérez-Peñaranda A, Losada-Baltar A, Pérez-Arechaederra D, Gómez-Marcos MA, Patino-Alonso MC, et al. Relationships between quality of life and family function in caregiver. BMC Fam Pract 2011;12(1):12-9.
11. Smilkstein G. The family APGAR: a proposal for family function test and its use by physicians. J Fam Pract 1978;6(6):1231-39.
12. Pavarini SCL, Tonon FL, Silva JMC, Mendiondo MZ, Barham EJ, Filizola CLA. Quem irá empurrar minha cadeira de rodas? a escolha do cuidador familiar do idoso. Rev Eletrônica Enferm 2006;8(3):326-35.
13. Silva H, Rabelo DF, Queroz NC. Qualidade de vida, percepção da dinâmica familiar e do suporte social em idosos. Pensando Fam 2010;14(2):137-50.
14. Santos AA, Pavarini SCL, Barham EJ. Percepção de idosos pobres com alterações cognitivas sobre funcionalidade familiar. Texto & Contexto Enferm 2011;20(1):102-10.
15. Paiva ATG, Bessa MEP, Moraes GLA, Silva MJ, Oliveira RDP, Soares AMG. Avaliação da funcionalidade de famílias com idosos. Cogitare Enferm 2011;16(1):22-8.
16. Batistoni SST, Neri AL, Tomomitsu MRSV, Vieira LAM, Oliveira D, Cabral BE, et al. Arranjos domiciliares, suporte social, expectativa de cuidado e fragilidade. In: Neri AL, organizadora. Fragilidade e qualidade de vida na velhice. Campinas: Alínea; 2013. p. 267-82.
17. Torres GV, Reis LA, Reis LA, Fernandes MH. Qualidade de vida e fatores associados em idosos dependentes em uma cidade do interior do Nordeste. J Bras Psiquiatr 2009;58(1):39-44.
18. Torres GV, Reis LA, Reis LA, Fernandes MH, Xavier TT. Relação entre funcionalidade familiar e capacidade funcional de idosos dependentes no município de Jequié (BA). Rev Baiana Saúde Pública 2010;34(1):19-30.
19. Brucki SMD, Nitrini R, Caramelli P, Bertolucci PHF, Okamoto IH. Sugestões para o uso do mini-exame do estado mental no Brasil. Arq Neuropsiquiatr 2003;61(3B):777-81.
20. Neri AL, Guariento ME. Fragilidade, saúde e bem-estar em idosos: dados do Estudo FIBRA Campinas. Campinas: Alínea; 2011.

21. Lino VTS, Pereira SEM, Camacho LAB, Ribeiro Filho ST, Buksman S. Adaptação transcultural da Escala de Independência em Atividades de Vida Diária (Escala de Katz). Cad Saúde Pública 2008;24(1):103-12.

22. Brito FC, Nunes MI, Yuaso DR. Multidimensionalidade em Gerontologia II: instrumentos de avaliação. In: Netto MP, organizador. Tratado de Gerontologia. 2ª ed. São Paulo: Atheneu; 2007. p. 133-47.

23. Almeida OP, Almeida SA. Short version of the geriatric depression scale: a study of their validity for the diagnosis of major depressive episode according to ICD-10 and DSM-IV. Int J Geriatr Psychiatry 1999;14(10):858-65.

24. Cunha JA. Manual da versão em português das Escalas Beck. São Paulo: Casa do Psicólogo; 2001.

25. Niven K, Holman D, Totterdell P. How to win friendship and trust by influencing people's feelings: an investigation of interpersonal affect regulation and the quality of relationships. Hum Relat 2012;65(6):777-805.

26. Carl JR, Soskin DP, Kerns C, Barlow DH. Positive emotion regulation in emotional disorders: a theoretical review. Clin Psychol Rev 2013;33(3):343-60.

27. Stella F. Ansiedade no idoso. In: Forlenza OV, organizador. Psiquiatria Geriátrica: do diagnostico precoce à reabilitação. São Paulo: Atheneu; 2007. p. 97-106.

28. Vink D, Aartsen MJ, Schoevers RA. Risk factors for anxiety and depression in the elderly: a review. J Affect Disord 2008;106(1-2):29-44.

29. Norton J, Ancelin ML, Stewart R, Berr C, Ritchie K, Carrière I. Anxiety symptoms and disorder predict activity limitations in the elderly. J Affect Disord 2012;141(2-3):276-85.

30. Florian V, Mikulincer M, Hirschberger G. The Anxiety-Buffering function of close relationships: evidence that relationship commitment acts as a terror management mechanism. J Pers Soc Psychol 2002;82(4):527-42.

31. Charles ST, Carstensen LL. Social and emotional aging. Ann Rev Psychol 2009;61:383-409.

32. Vilela ABA, De Carvalho PAL, De Araújo RT. Envelhecimento bem-sucedido: representação de idosos. Rev Saúde.com 2006;2(2):101-14.

33. Griffith L, Raina P, Wu H, Zhu B, Stathokostas L. Population attributable risk for functional disability associated with chronic conditions in Canadian older adults. Age Ageing 2010;39(6):738-45.

34. Neri AL, Ribeiro LHM, Costa TB, Pinto JM, Mantovani EP, Pereira AA. Relações entre atividades sociais, físicas, de lazer passivo e de repouso diurno e fragilidade. In: Neri AL, organizadora. Fragilidade e qualidade de vida na velhice. Campinas: Alínea; 2013. p. 247-66.

Received: June 23, 2014
Revised: Jan 05, 2015
Accepted: Feb 24, 2015