Saúde e Pesquisa
DOI: 10.17765/2176-9206.2021v14Supl.1.e7823
e-ISSN: 2176-9206

Vulnerabilities in the elderly: health, social support, family head and household livelihood

Vulnerabilidades em idosos: saúde, suporte social, chefia e sustento familiar

Doris Firmino Rabelo[1], Josevânia da Silva[2]

[1] Doctor in Education of the Universidade Estadual de Campinas. Professor at the Center of Health Sciences of the Universidade Federal do Recôncavo da Bahia, in Santo Antônio de Jesus (BA) and of the Postgraduate Program in Psychology of the Universidade Federal da Bahia, Salvador BA Brazil; [2] Doctor´s degree in Social Psychology at the Universidade Federal da Paraíba (UFPB). Professor at the Department of Psychology and Professor at the Postgraduate Program in Health Psychology (Master´s) of the Universidade Estadual da Paraíba, in Campina Grande PB Brazil.

***Corresponding author:** Doris Firmino Rabelo - E-mail: drisrabelo@yahoo.com.br

ABSTRACT
The elderly's vulnerability processes were analyzed based on the association between physical and psychological health conditions, perceived social support, financial contribution and head leadership through cluster analysis. One hundred and thirty-four participants were interviewed at home. Cluster analyses were performed using the partition method, and based on the Chi-square and Fisher exact tests ($p \leq 0.05$), comparisons were made between the variables that comprised the clusters. The basic activities of daily living, the number of self-reported signs and symptoms and instrumental activities of daily living were the variables that most contributed to the formation of the clusters. Greater health vulnerability was observed in long-lived elderly, with dependence for activities of daily living, with worse psychological and health conditions, with low social support, low social participation and overload in the exercise of family responsibilities.

Keywords: Elderly. Family. Income. Health vulnerability. Social support.

RESUMO
Este estudo teve por objetivo analisar processos de vulnerabilidade de pessoas idosas a partir da associação entre condições de saúde física e psicológica, suporte social percebido, contribuição financeira e chefia familiar. Participaram 134 idosos entrevistados em domicílio. Foram feitas análises de conglomerados mediante o método da partição e comparações entre as variáveis que compuseram os conglomerados com base nos testes Qui-quadrado e Exato de Fisher ($p \leq 0,05$). As atividades básicas e instrumentais de vida diária e o número de sinais e sintomas autorrelatados foram as variáveis que mais contribuíram para a formação dos conglomerados. Maior vulnerabilidade em saúde foi observada em idosos longevos, com dependência para atividades cotidianas, com piores condições de saúde psicológica, com baixo suporte social, com baixa participação social e com sobrecarga no exercício de responsabilidades familiares.

Palavras-chave: Apoio social. Família. Idoso. Renda familiar. Vulnerabilidade em saúde.

Received in October 24, 2019
Accepted on November 24, 2020

INTRODUCTION

Human aging is a dynamic and multidetermined process[1], and the contexts in which people age are related to vulnerability and health conditions. The recognition of the relationship between social processes and health is present in the framework of collective health[2]. Phenomena such as the health and illness of individuals and populations are analyzed based on a theoretical methodological framework that considers the existing dialectic between individual, interpersonal, group and societal elements, which are referenced based on political, economic and historical determinations[3].

The ways of aging are distinguished, among other aspects, according to social belongings, living conditions, culture and access to material and symbolic goods. In the Brazilian reality, for instance, there are variations in life expectancy at birth by regions of the country - population projections by the Brazilian Institute of Geography and Statistics (IBGE) indicate that the Northeast is the one that will have the lowest rate in 2030[4-5]. Elderly, socially vulnerable people are more affected by chronic health problems and limitations in functional capacity. Even small differences in household income are sufficiently sensitive to identify those with poorer health conditions and less access to health services[1]. The cumulative effects of inequalities throughout life add to the normal biological processes of old age, generating greater vulnerability.

Health vulnerability can be understood as the susceptibility of individuals, groups or populations to certain diseases, which can be increased or decreased due to the set of political, social and cultural aspects, among others[6]. The conceptual perspective of vulnerability considers three interrelated and inseparable dimensions: the individual, in which the subject is understood as a human being in relation to everyday scenarios; social, which includes living conditions, income, family structure, social roles, power relations and others; and programmatic, which concerns the sphere of governmental institutions (for example, the absence of public policies and the denial of rights)[6]. Vulnerability is also related to the resources that social actors have to cope, in the sense of the social response aimed at the problem.

It is understood that the individual and social dimensions encompass, among other elements, the health conditions of the elderly, age group, sex, perceived support, family heads and their contribution to household livelihood. These are relational processes associated with social roles and functions and inform about the appropriation of symbolic and material resources. Therefore, it is necessary to consider the characteristics of the social context that generate inequalities in exposures and vulnerabilities, as well as the aspects that should subsidize political

and assistance interventions to reduce health inequities[7].

Elderly people who are responsible for the family, with significant participation in household income, are generally more vulnerable to illness[7]. This situation exposes them to sharing homes with insufficient per capita incomes to meet basic needs, reducing financial availability for other areas of quality of life and increasing the risk of becoming ill. The disabilities generated by these conditions tend to weaken their social interaction and community participation, with risks of social isolation.

Social support is a determinant of the elderly's health and can be characterized by their assessment in relation to the frequency and quality of the help they have due to their needs[8]. It is associated with the quality of life perceived in the Brazilian elderly population[9] and connects these people in social activities[8].

This study aimed to analyze the vulnerability processes of the elderly from the association between physical and psychological health conditions, perceived social support, financial contribution and family leadership through cluster analysis.

METHODOLOGY

PARTICIPANTS

The study included 134 elderly people, aged between 60 and 95 years, with an average of 72 years old, (±8 years old), the majority black (black = 29.9% + brown = 38.8%) and female (77.6%). They were part of the so-called Identity Territory of Recôncavo Baiano, located in the eastern region of the State of Bahia, with an HDI calculated at 0.621 and a GINI index of 0.574, indicating a context of high levels of social inequality. They lived in Santo Antônio de Jesus, considered a pole city in the region and an important commercial and service center, regionally known as the capital of the Recôncavo.

DATA COLLECTION PROCEDURES AND ETHICAL ASPECTS

The data were collected in 2011 with the aid of community health agents, who helped to identify households with elderly people located in the area covered by the Health Unit which had the largest number of elderly people registered in the municipality at the time of collection. Recruiters were instructed to consider the following eligibility criteria: age 60 years or older; permanent residence in the region and at home; understanding of instructions; interest in participating; and signing the Informed Consent Form (ICF).

The inclusion criterion of the sample was based on the performance of people in the Mini Mental State Examination (MMSE), a dementia screening test commonly used in population studies. Cut-off scores were adopted for each educational level, according to the standards adopted in the FIBRA[10] study. The option to include

elderly people without cognitive impairment suggestive of dementia was made in order not to damage the reliability of self-report responses.

Two hundred and seven households were visited, referred by community health agents or by the elderly themselves, and seven did not meet one or more eligibility criteria. Sixty-six people scored below the cutoff score in the MMSE, which is why they were excluded from the sample. In the data collection, it was required that the interview took place in a part of the house that could provide greater privacy and tranquility, avoiding interruption by other people. This process took two to three visits of two hours each, on average.

The study was approved by the Research Ethics Committee of Faculdade Maria Milza (FAMAM), in the municipality of Cruz das Almas - Bahia (protocol no 034/2011), according to Resolution No. 465/2012 of the National Health Council (CNS), from the Brazilian Ministry of Health. All the elderly signed the informed consent form (ICF) and were guaranteed the right to quit the research at any time.

INSTRUMENTS

For data collection, instruments were used according to the variables of interest, namely:

1. Sociodemographic characteristics, financial contribution and family head

Age (grouped in two groups - 60 to 74 years and 75 years or more) and sex (female and male) were evaluated; family head (based on the question "Who is the head of the family?", the answers were grouped in the options yes or no for the head of the elderly); financial contribution of the elderly to household livelihood (a question with the alternatives total, partial or none).

2. Physical health conditions

a) Questionnaire on diseases and self-reported signs and symptoms: an attempt was made to identify chronic diseases diagnosed by a healthcare professional in the last year (nine, with dichotomous responses), as well as signs and symptoms (12, with dichotomous responses), both grouped in categories none, 1 to 2 and 3 or more[10].

b) Index of Independence in Activities of Daily Living (BADLs)[11]: it was obtained through a six-item scale, with three possible answers about the help needed (none, partial or total) for bathing, dressing, toilet, transfer, sphincter control and feeding. The answers were grouped into: independent, partial dependence and total dependence.

c) Performance of instrumental activities of daily living (IADLs)[12]: it was evaluated using scales with three possible answers about the help needed (none, partial or total)

to make a phone call, use transport, shop, cook, do household chores, take medication and money management. The answers were grouped into: independent, partial dependence and total dependence.

d) Social involvement: the assessment was based on self-report about participation in physical activities, in a community center, in the community and religious activities (with answers that were grouped as yes or no). The data were categorized by median, with less or greater social involvement.

3. Psychological health conditions

a) Geriatric Depression Scale (GDS): composed of 15 yes x no questions, about how the elderly had felt during the last week, which refer to dysphoric moods. It is a depression screening scale, with a cutoff score $\geq$ 6 (mild depression) and $\geq$ 11 (severe depression). Subsequently, the categories for dichotomous analyzes were combined (yes x no).

b) Beck Anxiety Inventory (BAI)[13]: composed of 21 items on common anxiety symptoms, with four possible responses. The cutoff score $\geq$ 11 refers to mild anxiety, $\geq$ 20 (moderate anxiety) and $\geq$ 31 (severe anxiety), in a score that can vary between 1 and 63 points. Subsequently, the categories were mild, moderate or severe for dichotomous analyzes (yes x no).

4. Social support

Interpersonal Support Evaluation (ISEL) in short version: evaluates the perception of social support, indicative of the availability of affective, instrumental and informative social support. Subjects are asked to say how often, in a week, the following situations occur: 1) meet people to talk to when they feel alone; 2) meet and chat with friends and family; 3) find people to help with chores if they are sick; 4) having someone to rely on when needing a suggestion on how to deal with a problem; and 5) having at least one person whose opinion they fully trust. The items are answered on a four-point scale (1 = never; 2 = sometimes; 3 = most of the time; and 4 = always). The data were grouped into lesser or greater social support, according to the median.

DATA ANALYSIS

The data were submitted to statistical analysis with the aid of the statistical package The SAS System for Windows (Statistical Analysis System), version 9.2, in order to study the sample profile. Cluster analysis was performed using the partition method, in which the number of clusters is previously established. It is a multivariate analysis based on the frequency distributions of a set of categorical variables, without indicating the correlation and the relative weight of certain variables over another. It is useful to indicate the general trends in the joint distribution of the variables of

interest. Clusters are compared with theory and research data, enabling interpretation.

Initially, a solution was carried out with two clusters and then with three. This last solution resulted in better arrangements, characterized by higher R^2 and a greater number of variables. The way used to assess the quality of the solution found was to assess whether there was a possibility of discriminating between the clusters based on the variables that comprised them. Based on the Chi-square and Fisher's Exact tests (significance level of 5%), comparisons were made between the proportions of responses to the categories of variables comprising the clusters.

RESULTS

In the cluster analysis, the partition method was used, establishing the creation of three clusters a priori, the results of which can be seen in Table 1.

Table 1. Size of clusters according to the analysis of variables. Santo Antônio de Jesus, BA. 2011

Groups	Frequency	RMS² (Standard Deviation)	Maximum observed distance from the center	Closer Cluster	Distance between group centroides
1	67	0.9367	4.9589	3	2.5627
2	02	0.8136	2.0743	1	7.3970
3	65	0.8733	4.4353	1	2.5627

RMS² (Standard Deviation) = Index RMSSTD (*Root Mean Square Standard Deviation*), used to calculate the homogeneity of clusters.
Source: research data

The formation with three clusters had an R^2 of 0.193, explaining 19.3% of the data variability. The variables that contributed the most (variables with the highest R^2) were basic activities of daily living (R^2 = 0.730), the number of self-reported signs and symptoms (R^2 = 0.356) and instrumental activities of daily living (R^2 = 0.321). Table 2 shows the results of cluster analysis.

Table 2. Results of cluster analysis according to variables. Santo Antônio de Jesus, BA. 2011

Variables	Standard Deviation	Coefficient of determination *	RSQ/(1-RSQ)**
Sex	0.98728	0.039941	0.041602
Age	0.94773	0.115321	0.130354
Family head	0.97501	0.063656	0.067984
Contribution to household livelihood	0.93164	0.145105	0.169735
N° self-reported diseases	0.88631	0.226260	0.292423
N° self-reported signs and symptoms	0.80849	**0.356181**	0.553231
Social involvement	0.97582	0.062101	0.066213
Basic activities of daily living	0.52306	**0.730526**	2.710937
Instrumental activities of daily living	0.83051	**0.320630**	0.471952
Depression	0.93360	0.141499	0.164821
Anxiety	0.92690	0.153769	0.181711
Perceived social support	0.93797	0.133434	0.153980
Total	0.90538	**0.192605**	0.238552

* Coefficient of determination, R^2 = Square of the correlation coefficient; used to calculate dissimilarity between clusters.**** Proportion of variance within groups (R^2/ (1-R^2))**
Source: research data

Analyzes were performed to compare the variables between the three clusters, in order to identify their composition. The results of these comparisons are shown in Table 3.

Table 3. Comparison of variables between clusters. Santo Antônio de Jesus, BA. 2011

Variables	Categories	Total sample		Groups (%)			
		n	%	1	2	3	P-value *
Age	60-74 years old	89	66.4	53.7	-	**81.5**	< **0.001**
	≥ 5 years old	45	33.6	**46.3**	**100.0**	18.5	
Sex	Female	104	77.6	85.1	100.0	69.2	0.092
	Male	30	22.4	14.9	0.0	30.8	
Family head	Yes	97	72.4	**83.6**	50.0	61.5	**0.007**
	No	37	27.6	16.4	50.0	**38.5**	
Contribution to household livelihood	Total	66	49.3	**67.2**	50.0	30.8	< **0.001**
	Partial	59	44.0	31.3	50.0	**56.9**	
	None	09	6.7	1.5	-	**12.3**	
Social involvement	Lesser	88	65.7	**76.1**	**100.0**	53.8	**0.010**
	Greater	46	34.3	23.9	-	**46.2**	
N° self-reported diseases	None	18	13.4	4.5	-	**23.1**	< **0.001**
	1-2	70	52.3	41.8	-	**64.6**	
	≥ 3	46	34.3	**53.7**	**100.0**	12.3	
N° self-reported signs and symptoms	None	12	9.0	-	-	**18.5**	< **0.001**
	1-2	42	31.3	10.5	50.0	**52.3**	
	≥ 3	80	59.7	**89.5**	50.0	29.2	

Basic activities	Independent	129	96.3	**95.5**	-	**100.0**	**< 0,001**
	Partial Dependence	03	2.2	**4.5**	-	-	
	Total Dependence	02	1.5	-	**100.0**	-	
Instrumental activities	Total Dependence	08	6.0	7.5	**100.0**	1.5	**< 0.001**
	Partial Dependence	48	35.8	**59.7**	-	12.3	
	Independent	78	58.2	32.8	-	**86.2**	
Depression	Yes	23	17.2	**31.3**	-	3.1	**< 0.001**
	No	111	82.8	68.7	**100.0**	**96.9**	
Anxiety	Yes	31	23.1	**38.8**	50.0	6.2	**<0.001**
	No	103	76.9	61.2	50.0	**93.8**	
Social support	Lesser	70	52.2	**68.7**	**100.0**	33.8	**<0.001**
	Greater	64	47.8	31.3	-	**66.2**	

* Fisher's exact test; significant difference if $p \leq 0.05$.
Source: research data

From the analysis, the composition of the clusters or groups with the following characteristics was identified:

- **Group 1** (n = 67; 50% of sample): predominantly made up of older people (≥ 75 years old), family head, total contribution to household livelihood, less social participation, greater number of diseases, self-reported signs and symptoms, independence or partial dependence on basic activities of daily living, partial dependence on instrumental activities of daily living, depression, anxiety and less social support;
- **Group 2** (n = 02; 1,5% of sample): predominantly formed by older people (≥ 75 years old), less social participation, more diseases, total dependence on basic and instrumental activities of daily living, without depression and with less social support;
- **Group 3** (n = 65; 48.5% of sample): predominantly made up of younger people (60-74 years old), not a family head, with partial or none contribution to household livelihood, greater social participation, fewer self-reported diseases, signs and symptoms, independence in basic and instrumental activities of daily living, without depression, without anxiety and with greater social support.

DISCUSSION

Half of the elderly investigated is in Group 1, which differs significantly from Group 3 in terms of independence, age group, social support and in relation to the processes of physical and psychological illness. The results showed that older

people who are family heads and who are responsible for providing for the family are also those who, more often, have health problems.

Groups 1 and 2 characterized older elderly, that is, they refer to the age group (equal to or greater than 75 years old) with less biological plasticity. In the Brazilian elderly population, the longest-lived ones have shown greater multimorbidity[14]. In addition, the prevalence of difficulty in basic activities of daily living is 45% higher when compared to elderly people of a younger age, an index that increases in the presence of two or more chronic diseases[15-16]. This means that the older the age group, the greater the chance of needing help with activities of daily living and the greater the need for social and personal resources to compensate or maintain current levels of functionality and development.

In this research, there were few elderly people aged 75 or over who, even with health and dependency demands, did not contribute directly or indirectly to the leadership and/or cost of family expenses. Targeting income for this purpose may imply a reduction in investment in leisure activities - which contribute to well-being and mental health - as well as in maintaining one's own health, such as the purchase of medicines and supplies, among others. The socioeconomic condition of the household, the insufficient income for expenses and the diagnosis of depression are predisposing factors for the underuse of medications for financial reasons in the Brazilian elderly population[17]. Furthermore, self-rated work ability decreases with increasing age, which is aggravated by the presence of depression and one or more chronic diseases[18].

It is the elderly in Group 1 who also frequently presented anxiety and depression. A population study with elderly people from Maceió (AL) showed a higher occurrence of these psychopathologies among those with low socioeconomic status, indicating that insufficient income for family expenses has an impact on mental health[19].

In contexts of greater social vulnerability, associated with factors related to financial conditions, worse social support and greater fragility, it is common for the elderly to be a source of income for their family[20]. In this scenario, the financial crises and unemployment that collaborate so that the children need to live with their parents stand out in this scenario. These aspects increase home arrangements, which can generate instability in family relationships. Larger home arrangements have been associated with insufficient care for the elderly[16]. The low perception of support has negative effects on psychological health[21].

Social support is one of the health-promoting elements[22-23] and is highlighted by the “Technical manual for health promotion and prevention of risks and diseases in supplementary health” when dealing with the global assessment of the elderly. In the Brazilian population of this age group, the perceived quality of life

showed a positive and independent association with the frequency of meetings with friends, with instrumental support at home, spouse or partner and emotional support from other relatives, children, daughter-in-law or son-in-law, and the spouse or partner[10]. Otherwise, a worse assessment of this issue was observed among the oldest ones and with mobility difficulties[10].

Social involvement is an indicator of better levels of health and functionality, greater control of the physical and social environment and is related to multiple psychological and physical benefits[8]. However, in Brazil, activities related to functional performance and urban characteristics, such as crossing the street and access to public transport, constitute barriers to social participation in older adults[24].

Group 2, which least represented the sample, was characterized by older people with functional dependence, restricted social participation, without depression and who considered the support they received insufficient. Complete dependency, although not desired, is an event that forces the family system to change the flow of transfers of available resources, which interferes with the hierarchical position of the elderly in the family and the use of their income[25].

Dissatisfaction with the support received may mean that only the most basic needs are being met, and not those expected or prioritized by the elderly themselves[24]. What is more, dependence is a process in which adjustments and reorganizations are made over time, so that mental health is an indicator of the family's ability to respond to this transition event[26]. However, this does not mean complete and full satisfaction and assistance of the demands.

Elderly people in Group 3 were the ones who signaled the greatest possibilities in terms of social involvement, autonomy, independence, better physical and mental health conditions. The vulnerability processes in health seem to be lower among the youngest (less than 75 years old), who do not exercise the role of family head, with social support and who do not contribute to household livelihood or do so only partially.

This group represents the possibility of exercising autonomy, which goes beyond functional capacity. When social conditions are adequate, these people can save their resources to invest in areas and activities that give them greater pleasure and fulfillment, in addition to being able to delegate responsibilities to other family members. The importance of favoring, in old age, experiences of relevant and significant activities for the maintenance of better physical, mental and social health[9-10] are emphasized.

The groups differed mainly in terms of leadership, financial contribution and functional conditions, which may indicate that exercising this responsibility in the family, during old age, burdens both men and women, especially if the needs for support and care are urgent. More than a

simple economic account, vulnerability has structural dimensions (such as systems that make families dependent on the resources of older members) and sociability, in which relationships and affections interact[6,27]. Vulnerability processes include, dialectically, individual, social and programmatic dimensions[28].

Finally, it is important to highlight that the majority of the sample was made up of black elderly people and women. Although the gender variable did not differ significantly in any group and race was not included in the analyzes, they inevitably inform about the reality of the aging of the Recôncavo Identity Territory. Elderly women and the black population are the most affected by chronic conditions and the most vulnerable to illness[9,29]. In this study, the variables that most contributed to the formation of clusters were basic activities of daily living, the number of self-reported signs and symptoms and instrumental activities of daily living.

This information can assist in the elaboration of specific health promotion policies for the elderly in northeastern Brazil, as well as in the organization of the health and quality services sector for these people and their community with a view to integrality and social justice. In the field of collective health, analyzes about health processes considering the individual-society[6] relationship are essential; it is essential to take into account the complex social dynamics underlying the processes of production and reproduction of structures of domination that exploit and place populations in exclusion and marginalization, which ends up being expressed in health processes[2].

It is pointed out that there are some limitations in the present study. First, the data collection period (2011) may restrict the application of the findings in the current reality. In addition, the transversal nature of the data, the descriptive analysis and the need to place the family in relation to the variables indicative of programmatic vulnerability are highlighted. For further studies, it is suggested, for example, to investigate how elderly families are organizing themselves to support their demands, what are the priorities for the use of family resources and what is the access of these people with health vulnerabilities to a health network care provided by public policies.

CONCLUSION

The present study investigated the vulnerability processes of elderly people based on the association between physical and psychological health conditions, perceived social support, financial contribution and family leadership through the analysis of clusters. Among the findings, it was evident that basic activities of daily living, the number of self-reported signs and symptoms and instrumental activities of daily living were the variables that most contributed to the formation of clusters. Greater health vulnerability was observed in long-lived elderly, with dependence for activities of daily living,

worse psychological health conditions, low social support, low social participation and overload in the exercise of family responsibilities.

The analysis of the vulnerabilities that increase the chances of exposure of the elderly to illness, disabilities and other weaknesses is complex and requires the consideration of a set of related variables. Among the data found, it is noteworthy that the majority of participants were black and women. In this sense, health promotion in old age requires directing actions throughout the course of life that consider family arrangements, family income and policies aimed at the social participation of this population.

REFERENCES

1. Barrett AE, Toothman EL. Multiple "old ages": The influence of social context on women's aging anxiety. J Gerontol B Psychol Sci Soc Sci. 2017;73(8):e154-e164.

2. Borde E, Hernández M, Souza MF. Uma análise crítica da abordagem dos Determinantes Sociais da Saúde a partir da medicina social e saúde coletiva latino-americana. Saúde em Debate. 2015;39(106):841-54.

3. Caravantes RED. Vulnerabilidad y riesgo como conceptos indisociables para el estudio del impacto del cambio climático en la salud. Región y sociedade. 2018;30(73):169-201.

4. Brasil. Instituto Brasileiro de Geografia e Estatística. Projeção da população 2018: número de habitantes do país deve parar de crescer em 2047 [Internet]. 2018 [citado em 2019 out 15]. Disponível em: https://agenciadenoticias.ibge.gov.br/agencia-sala-de-imprensa/2013-agencia-de-noticias/releases/21837-projecao-da-populacao-2018-numero-de-habitantes-do-pais-deve-parar-de-crescer-em-2047

5. World Health Organization, WHO. Life expectancy and healthy life expectancy (Data by WHO region) [Internet]. 2018 [cited in 2019 Oct 15]. Avaliable in: http://apps.who.int/gho/data/view.main.SDG2016LEXREGv?lang=en

6. Castellanos MEP, Baptista TWDF, Ayres JR. Entrevista com José Ricardo Ayres. Saúde e Sociedade. 2018;27:51-60.

7. Geib LTC. Determinantes sociais da saúde do idoso. Cien Saúde Coletiva. 2012;17(1):123-33.

8. Guedes MBOG, Lima KC, Caldas CP, Veras RP. Apoio social e o cuidado integral à saúde do idoso. Physis Rev Saúde Coletiva. 2017;27(4):1185-204.

9. Neri AL, Borim FSA, Fontes AP, Rabello DF, Cachioni M, Batistoni SST, et al. Factors associated with perceived quality of life in older adults: ELSI-Brazil. Rev Saúde Pública. 2018;52(Suppl 2):16s. doi: https://doi.org/10.11606/s1518-8787.2018052000613

10. Neri AL, Guariento ME. Fragilidade, saúde e bem-estar em idosos: dados do Estudo FIBRA Campinas. Campinas: Alínea; 2011.

11. Lino VTS, Pereira SRM, Camacho LAB, Ribeiro ST Filho, Buksman S. Adaptação transcultural da Escala de Independência em atividades da vida diária (Escala de Katz). Cad Saúde Pública. 2008;24(1):103-12.

12. Brito FC, Nunes MI, Yuaso DR. Multidimensionalidade em gerontologia II: instrumentos de avaliação. In: Freitas EV, Py L, Neri AL, Cançado FAXC, Gorzoni ML, Doll J, organizadores. Tratado de Gerontologia. São Paulo (SP): Atheneu; 2007. p.133-147.

13. Cunha JA. Manual da versão em português das escalas Beck. São Paulo (SP): Casa do Psicólogo; 2001.

14. Barbosa KTF, Costa KNFM, Pontes MLF, Batista PSS, Oliveira FMRL, Fernandes MGM. Aging and individual vulnerability: a panorama of older adults attended by the family health strategy. Texto Contexto – Enferm. 2017;26(2):1-10.

15. Nunes BP, Batista SRR, Andrade FB, Souza-Junior PRB, Lima-Costa MF, Facchini LA. Multimorbidity: The Brazilian Longitudinal Study of Aging (ELSI-Brazil). Rev Saúde Pública. 2018;52(Suppl 2):10s. doi: https://doi.org/10.11606/S1518-8787.2018052000637

16. Giacomin KC, Duarte YAO, Camarano AA, Nunes DP, Fernandes D. Care and functional disabilities in daily activities – ELSI-Brazil. Rev Saúde Pública. 2018;52 (Suppl 2):9s. doi: https://doi.org/10.11606/s1518-8787.2018052000650

17. Loyola AI Filho, Firmo JOA, Mambrini JVM, Peixoto SV, Souza-Junior PRB, Andrade FB, et al. Cost-related underuse of medications in older adults: ELSI-Brazil. Rev Saúde Pública. 2018;52(Suppl 2):8s. doi: https://doi.org/10.11606/s1518-8787.2018052000622

18. Castro CMS, Lima-Costa MF, César CC, Neves JAB, Andrade FB, Souza-Junior PRB, et al. Curso da vida e capacidade para o trabalho entre adultos mais velhos: ELSI-Brasil. Rev Saúde Pública. 2018;52(Supl. 2):11s. doi: https://doi.org/10.11606/s1518-8787.2018052000648

19. Maximiano-Barreto MA, Aguiar IM, Martins KC, Buarque DC, Fermoseli AFDO. Ansiedade e depressão e a relação com a desigualdade social entre idosos. Psic Saúde & Doenças. 2019;20(1):209-19.

20. Jesus IT, Orlandi AA, Grazziano ES, Zazzetta MS. Fragilidade de idosos em vulnerabilidade social. Acta Paul Enferm. 2017;30(6):614-20.

21. Gouveia OMR, Matos AD, Schouten MJ. Social networks and quality of life of elderly persons: a review and critical analysis of literature. Rev Bras Geriatr Gerontol. 2016;19(6):1030-40.

22. Macedo JP, Dimenstein M, Sousa HRD, Costa APAD, Silva BIDBD. A produção científica brasileira sobre apoio social: tendências e invisibilidades. Gerais, Rev Interinst Psicol. 2018;11(2):258-78.

23. Brasil. Agência Nacional de Saúde Suplementar. Manual técnico de promoção da saúde e prevenção de riscos e doenças na saúde suplementar. Rio de Janeiro: ANS; 2006.

24. Ferreira FR, César CC, Andrade FB, Souza-Junior PRB, Lima-Costa MF, Proietti FA. Aspectos da participação social e a percepção da vizinhança: ELSI-Brasil. Rev Saúde Pública. 2018;52(Supl. 2):18s. doi: https://doi.org/10.11606/s1518-8787.2018052000647

25. Fuhrmann AC, Bierhals CCBK, Santos NO, Paskulin LMG.

Associação entre a capacidade funcional de idosos dependentes e a sobrecarga do cuidador familiar. Rev Gaúcha Enferm. 2015;36(1):14-20.

26. Silva LLNB, Rabelo DF. Afetividade e conflito nas díades familiares, capacidade funcional e expectativa de cuidado de idosos. Pensando fam. 2017;21(1):80-91.

27. Ohara ECC. Aging and public health policies and the interface with bioethics. Braz J Health Review. 2019;2(2):1412-37.

28. Saldanha AAW, Silva J, Furtado FMSF, Silva VF. Vulnerabilidades em saúde no contexto rural. In: Maciel SC, Fonsêca PN, organizadoras. Psicologia Social: vertentes e perspectivas. João Pessoa (PB): Editora UFPB; 2019. p. 147-164.

29. Rabelo DF, Silva J, Rocha NMFD, Gomes HV, Araújo LF. Racismo e envelhecimento da população negra. Revista Kairós-Gerontologia. 2018;21(3):193-215.