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Resilience in elderly people: factors associated with sociodemographic and health conditions

Resiliência em idosos: fatores associados às condições sociodemográficas e de saúde

Resiliencia en el adulto mayor: factores asociados a las condiciones sociodemográficas y de salud

Fernanda Resende Rodrigues[I]
ORCID: 0000-0002-0473-2271

Darlene Mara dos Santos Tavares[I]
ORCID: 0000-0001-9565-0476

[I] *Universidade Federal do Triângulo Mineiro. Uberaba, Minas Gerais, Brazil.*

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Corresponding author:
Fernanda Resende Rodrigues
E-mail: fernandaresende1@hotmail.com

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ABSTRACT

Objective: to describe the sociodemographic and health characteristics of elderly people, measure the score of total resilience and by sex and verify the association of sociodemographic and health variables with total resilience and by sex. **Methods:** this is a household survey with 808 elderly people, assessed by validated instruments. Student's t test and multiple linear regression (p<0.05). **Results**: most were female, 60|-|79 years old. The total resilience score was 78.06, for men 81.53 and for women, 76.32. Total resilience was associated with males; positive self-perceived health; greater participation in Advanced Activities of Daily Living; fewer morbidities; absence of depressive symptoms. Among men and women, resilience was associated with greater participation in Advanced Activities of Daily Living and absence of depressive symptoms and, specifically, among women, positive self-perceived health. **Conclusion:** these results contribute to nursing care, aiming to encourage resilience. **Descriptors:** Aged; Health of the Elderly; Psychological Resilience; Geriatric Nursing; Aging.

RESUMO

Objetivo: descrever as características sociodemográficas e de saúde dos idosos, mensurar o escore de resiliência total e por sexo e verificar associação das variáveis sociodemográficas e de saúde com a resiliência total e por sexo. **Métodos:** inquérito domiciliar com 808 idosos, avaliados por instrumentos validados. Realizaram-se teste t de *Student* e regressão linear múltipla (p<0,05). **Resultados**: a maioria era do sexo feminino, com 60|-|79 anos. O escore total de resiliência foi 78,06, sendo para homens 81,53 e para mulheres, 76,32. A resiliência total associou-se ao sexo masculino; autopercepção de saúde positiva; maior participação nas Atividades Avançadas da Vida Diária; menor número de morbidades; ausência de sintomas depressivos. Entre homens e mulheres, a resiliência associou-se à maior participação nas Atividades Avançadas da Vida Diária e ausência de sintomas depressivos e, especificamente, entre as mulheres a autopercepção de saúde positiva. **Conclusão:** esses resultados contribuem no cuidado de enfermagem, visando estimulo à resiliência.
Descritores: Idoso; Saúde do Idoso; Resiliência; Enfermagem Geriátrica; Envelhecimento.

RESUMEN

Objetivo: describir las características sociodemográficas y de salud de las personas mayores, medir el puntaje de resiliencia total y por sexo y verificar la asociación de variables sociodemográficas y de salud con la resiliencia total y por sexo. **Métodos:** encuesta domiciliaria a 808 ancianos, evaluada mediante instrumentos validados. Se realizaron la prueba t de Student y regresión lineal múltiple (p<0,05). **Resultados:** la mayoría eran mujeres, de 60|-|79 años. La puntuación total de resiliencia fue 78,06, para los hombres 81,53 y para las mujeres, 76,32. La resiliencia total se asoció con los hombres; autopercepción positiva de la salud; mayor participación en Actividades Avanzadas de la Vida Diaria; menos morbilidades; ausencia de síntomas depresivos. Entre hombres y mujeres, la resiliencia se asoció con una mayor participación en las Actividades Avanzadas de la Vida Diaria y ausencia de síntomas depresivos y, específicamente, entre las mujeres, con una salud autopercibida positiva. **Conclusión:** estos resultados contribuyen al cuidado de enfermería, con el objetivo de estimular la resiliência.
Descriptores: Ancianos; Salud del Anciano; Capacidad de Resistencia; Enfermería Geriátrica; Envejecimiento.

INTRODUCTION

Aging is often permeated by adversities and biological, economic and social risks that can affect well-being due to the multiple losses that occur simultaneously or successively[1]. Despite this, many individuals manage to maintain their lives with well-being and contentment, making use of several resources such as resilience[2].

Understood as a dynamic process, resilience has revealed itself as a capacity for overcoming adversity[3]. It involves overcoming negative events, being defined as the person's ability to leave strengthened from a situation that could have been traumatic. Thus, the difficulties that arise will not necessarily influence it in a negative way and, in many cases, will strengthen it[3].

To date, national studies with elderly people[2,4] have used a validated scale with a younger population, with people between 12 and 19 years old. The present research used a validated scale with adults and elderly people[5], which, added to the scarcity of scientific publications on the subject in Brazil, can contribute more reliably to a better understanding of resilience before the challenges faced in old age[6].

OBJECTIVE

To describe the sociodemographic and health characteristics of elderly people, measure the score of total resilience and by sex and verify the association of sociodemographic and health variables with total resilience and by sex[6].

METHODS

Ethical aspects

The project was approved by the Human Research Ethics Committee of *Universidade Federal do Triângulo Mineiro* (UFTM), in 2017, in accordance with Ordinance 466/12 of the Brazilian National Health Council (*Conselho Nacional de Saúde*)[7]. After they gave their consent and signed the Informed Consent Form, the interview was conducted.

Design, place of study, and period

This is a quantitative, household-survey type, cross-sectional and analytical study. Data were collected in the urban area of Uberaba, MG, in elderly people' homes between May 2017 and June 2018.

Population, and inclusion and exclusion criteria

Elderly people aged 60 or over, who live in the urban area of Uberaba and who do not have cognitive decline were included. Elderly people who were institutionalized, with communication problems such as deafness not corrected by hearing aids and severe speech disorders, with cognitive decline without an informant to answer the Functional Activities Questionnaire (PFEFFER)[8] or when the final score was higher or were excluded equal to six points[6].

To calculate the sample size, the coefficient of determination $R^2 = 0.02$ was considered in a multiple linear regression model with 10 predictors, with a level of significance or type I error of $\alpha = 0.05$ and type II error of $\beta = 0.2$, resulting, therefore, in a priori statistical power of 80%. By using the Power Analysis and Sample Size (PASS) application, version 13 and entering the values described above, a sample of 808 elderly people was obtained[6].

To identify elderly people, multiple stage cluster sampling was considered. In the first stage, an arbitrary draw of 50% of the census sectors in the municipality was carried out through systematic sampling, 202 being selected. In the second stage, the number of elderly people to be interviewed according to the sample calculation (808) was divided by the number of census sectors (202), so that four elderly people were interviewed per census sector, totaling 808[6].

Study protocol

Data collection was carried out by interviewers from the Public Health Research Group, who received training and supervision. The interviews conducted were delivered to the field supervisor to verify data completeness and consistency[6].

To identify the elderly person to be interviewed, in each census sector, the first household was selected at random. Thus, the presence of the elderly person who met the criteria established for the interview was verified at home, and, in a clockwise direction, he visited the other households until the sample of each census sector was included[6].

Cognitive decline was assessed by the Mini Mental State Examination (MMSE), translated and validated in Brazil[9]. If elderly people presented cognitive decline by MMSE, their companions would be asked to participate, in which PFEFFER was applied[8]. If elderly people had no informants at the time of the interview, it would be closed. This scale has 11 questions that assess elderly people's ability to carry out certain activities. It has a maximum score of 33 points and checks the presence/severity of cognitive decline based on functionality assessment and the need for assistance from other people. The application of PFEFFER associated with MMSE indicates the most severe presence of cognitive decline when the score is equal to or greater than six points[8]. Result in PFEFFER less than six: the interview was conducted with elderly people; the information being complemented by the informant. If the final score was equal to or greater than six, the interview was closed[6].

Sociodemographic data were collected in an instrument built by the UFTM Health Research Group. Functional capacity was assessed by performing Basic Activities of Daily Living (BADL) using the Katz Index, adapted to the Brazilian reality[9]. The instrument investigates six operating areas related to self-care. Each question has three answer options (from 1 to 3). In this study, the first and second responses were categorized as independence and the third response as dependency. The instrument allows classifying elderly people into: independent for all activities; dependent for an activity; dependent for two activities; dependent for three activities; dependent for four activities; dependent for five activities; dependent for all activities[9]. The classification ranges from 0 to 6, where: 0 = independent for all activities; 1 =

independent for five activities and dependent for one activity; 2 = independent for four activities and dependent for two activities; 3 = independent for three activities and dependent for three activities; 4 = independent for two activities and dependent for four activities; 5 = independent for one activity and dependent for five activities; 6 = dependent for all activities[6].

Instrumental Activities of Daily Living (IADL) were also measured using the Lawton and Brody Scale, adapted for Brazil[10], which consists of seven items with a score ranging from seven to 21 points. Total dependency is considered when the final score is seven, partial dependency, from eight to 20 and independent when elderly people get 21 points[6,10].

Advanced Activities of Daily Living (AADL) were assessed using thirteen questions of a social nature. Possible answers are: I never did it, I stopped doing it, I still do it[11]. Those who reported performing four or more activities were considered more active, and those who reported performing three or less activities were less active[12].

The indicative of the presence of depressive symptoms was measured using the Geriatric Depression Scale (GDS-15)[13]; to identify the presence of resilience, the Connor-Davidson Resilience Scale-25, Brazilian version, was used (CD-RISC-25BRASIL)[5-6].

Sociodemographic variables were sex (female and male), age group (60 | - | 79 and 80 years or more), marital status (with partner, without partner), education (without education, with education), housing arrangement (live together, live alone), individual monthly income (minimum wage) (<1; ≥1); indicative of the presence of depressive symptoms (yes or no); number of self-reported morbidities (none; 1 | - | 4, 5 or more); self-perceived health (positive, negative); functional capacity for BADL (dependent and independent); IADL (total/partial and independent dependent) and AADL (lower participation and greater participation)[6].

Data analysis and treatment

An electronic spreadsheet was built in the Excel® program, and the data collected were entered in double entry. Subsequently, consistency was found between the two databases when there were inconsistent data in the original interview, with correction being performed. The database was imported into the Statistical Package for Social Sciences (SPSS)® program, version 22.0 to perform analysis. Descriptive analysis was performed with measures of absolute and relative frequency for categorical variables, and mean and standard deviation for quantitative variables. To verify the association of sociodemographic and health characteristics with the resilience score, a preliminary bivariate analysis was performed, using Student's t test. Variables of interest were sex, age, marital status, education, individual monthly income, housing arrangement, self-perceived health, indicative of the presence of depressive symptoms, BADL, IADL and AADL. The variables of interest that met the established inclusion criterion (p≤0.10) were introduced in the multiple linear regression model, with the resilience score as an outcome (p≤0.05)[6].

RESULTS

It was found that, of the total elderly interviewed (808), most were female (66.7%), aged 60 |-| 79 (78.6%), without a partner (58.3%), with schooling (83.2%), with an individual monthly income greater than or equal to a minimum wage (91.0%) and living together (81.6%). Table 1 shows the sociodemographic variables of the elderly people interviewed[6].

Regarding health conditions, the highest percentage of elderly people was independent in BADL (92.8%), with partial dependence in IADL (72.5%), greater participation in AADL (73.8%), without indicative of the presence of depressive symptoms (76.5%), with 5 or more morbidities (67.5%) and negative self-perceived health (54.5%)[6].

Table 1 – Frequency distribution of sociodemographic variables of community elderly people, Uberaba, Minas Gerais, Brazil, 2018

Variables	n	%
Sex		
Male	269	33.3
Female	539	66.7
Age group (years)		
60 | - | 79 years	634	78.5
80 and older	174	21.5
Marital status		
With a partner	337	41.7
Without a partner	471	58.3
Education (years)		
Without education	137	17.0
With education	671	83.2
Income (minimum wage)		
<1	73	9.00
≥1	735	91.0
Housing arrangement		
Alone	149	18.4
Not alone	659	81.6

The mean of the total resilience score among elderly people was 78.06 points (± 16.66), for the female sex, it was 76.32 (± 17.57), and for the male, 81.53 (± 14, 09)[6].

The variables that met the established criterion (p≤0.10) and were submitted to multiple linear regression analysis were sex, marital status, housing arrangement, self-perceived health, IADL, AADL, number of self-reported morbidities and indicative of the presence of depressive symptoms (Table 2)[6].

Table 2 [6] shows the distribution of sociodemographic and health variables according to the resilience score in community elderly people.

In multiple linear regression, the variables associated with the highest resilience scores were sex male, positive self-perceived health, greater participation in AADL, absence of indicative of the presence of depressive symptoms and having 0 to 4 self-reported morbidities (Table 3)[6].

Among the elderly people, the variables that met the established criterion (p≤0.10) for analysis of multiple linear regression were marital status, housing arrangement, self-perceived health, IADL, AADL and indicative of the presence of depressive symptoms[6].

The variables associated with the highest resilience scores among elderly women were positive self-perceived health, greater participation in AADL and absence of indicative of the presence of depressive symptoms (Table 4)[6].

Table 2 – Comparative analysis of the resilience score with the sociodemographic and health variables of community elderly people, Uberaba, Minas Gerais, Brazil, 2018

Variables	Média	Standard Deviation (±)	*P*
Sex			
Male	81.53	14.09	0.000
Female	76.32	17.57	
Age group (years)			
60 | - | 79 years	77.99	17.01	
80 and older	78.27	15.38	0.846
Marital status			
With a partner	80.78	15.03	0.000
Without a partner	76.10	17.50	
Education (years)			
With education	78.33	16.82	0.301
Without education	76.71	15.84	
Income (minimum wage)			
<1	78.35	15.73	0.873
≥1	78.02	16.76	
Housing arrangement			
Alone	78.75	16.18	0.023
Not alone	74.99	18.42	
Self-perceived health			
Positive	82.80	14.12	0.000
Negative	74.08	17.58	
BADL			
Independent	78.18	16.71	0.422
Dependent	76.36	16.13	
IADL			
Independent	82.46	14.17	0.000
Total/partial dependent	76.42	17.22	
AADL			
Greater participation	80.63	15.32	0.000
Less participation	70.82	18.15	
Number of self-reported morbidities			
0 to 4	80.01	15.90	0.020
5 and more	77.11	16.95	
Indicative of the presence of depressive symptoms			
No	82.49	13.09	0.000
Yes	63.63	18.78	

Note: BADL - Basic Activities of Daily Living; IADL - Instrumental Activities of Daily Living; AADL - Advanced Activities of Daily Living.

Table 3 – Final multiple linear regression model of community resilience score, Uberaba, Minas Gerais, Brazil, 2018

Variables	β	*P*
Sex male	0.096	0.004
Marital status (with a companion)	0.008	0.812
Housing arrangement (living with a companion)	0.052	0.122
Positive self-perceived health	0.124	0.000
Independence in IADL	0.045	0.155
Greater participation in AADL	0.122	0.000
Absence of indicative of the presence of depressive symptoms	0.402	0.000
0 to 4 self-reported morbidities	-0.077	0.019

Note: IADL - Instrumental Activities of Daily Living; AADL - Advanced Activities of Daily Living.

Among elderly men, the variables that met the established criterion (p≤0.10) for analysis of linear regression were marital status, education, housing arrangement, self-perceived health; IADL, AADL, number of self-reported morbidities and indicative of the presence of depressive symptoms. Greater participation in AADL and the absence of indicative of the presence of depressive symptoms were associated with higher resilience scores among elderly men (Table 4)[6].

Table 4 – Final multiple linear regression model of the community's resilience score for the female and male, Uberaba, Minas Gerais, Brazil, 2018

Variables	Fem. β	*P*	Masc. β	*P*
Marital status (with a companion)	0.003	0.930	0.073	0.309
Housing arrangement (living with a companion)	0.066	0.088	0.009	0.900
Positive self-perceived health	0.099	0.012	0.105	0.078
Independence in IADL	0.036	0.348	0.050	0.402
Greater participation in AADL	0.107	0.006	0.170	0.006
Absence of indicative of the presence of depressive symptoms	0.446	0.000	0.242	0.000
Number of self-reported morbidities			0.043	0.460

Note: IADL - Instrumental Activities of Daily Living; AADL - Advanced Activities of Daily Living.

DISCUSSION

National surveys carried out among community elderly people also found a higher percentage of females[4,14] and the age group of 60 |-| 79[14]. Such findings are related to the feminization of aging, in which there is a greater concentration of women over 60 years of age in relation to men[6,14].

Similar to this study, the absence of a partner predominated in research with elderly people seen at a Reference Center for Elderly Health Care in northern Minas Gerais (83.0%)[16]. This data denotes the need for the health professional to obtain this information in clinical practice, in addition to the housing arrangement, since research has found that elderly people without partners have a greater tendency to functional disability[6,16].

A nationwide survey conducted with community elderly people identified that the majority had at least one or more years of study[17], which corroborates the present investigation. Low level of education can increase the vulnerability of elderly people with regard to understanding the guidelines for self-care in health, such as handling medications, following diets, prescriptions, among others[18]. In this perspective, it is necessary that health professionals make sure that health education actions are being effective for elderly people and family members.

In line with the profile of community elderly people of a survey conducted in northwestern Rio Grande do Sul, most have monthly earnings greater than or equal to a minimum wage[6,19]. Family income is a social determinant that can interfere with resilience, since socioeconomic status is related to the style and quality of life of individuals[19].

A survey found that elderly people who have family support have a better coping structure compared to those who do not[20]. Family ties contribute to the well-being of individuals, in addition to allowing them to remain integrated into their life contexts. The demonstration of affection is essential for elderly people to feel valued and live with dignity[20].

An investigation conducted in a Basic Health Unit in Teresina, Piauí State verified the predominance of independent elderly people for BADL, corroborating the findings of this investigation[6,16]. In terms of functionality, resilience has been associated with the ability to stay active and not develop depressive symptoms in the face of adversity[4]. Functional limitation can mean a threat

to the active life of elderly people, becoming a risk factor and decreasing their level of well-being and satisfaction[4].

A study carried out in northwestern Rio Grande do Sul State with community elderly people found a higher prevalence of independent elderly people (83.7%) in relation to IADL, differently from what was obtained in this investigation[21]. The inability to carry out any of these activities, in addition to harming elderly people's social life, can involve inconveniences for him and his family, who will have to mobilize more time, energy and financial resources to meet the demands that may arise[4,6].

Similar to what was found in a survey carried out with community elderly people, greater participation in AADL was prevalent in this study[11]. AADLs can indicate good physical and mental health, and the reduction in their participation can suggest the beginning of functional decline[10]. Therefore, nursing can use resources, such as social groups, to develop skills in carrying out daily activities or improve the physical fitness of these elderly people. Developing workshops that reproduce everyday scenes can be a useful strategy for nurses to minimize functional decline[6,22].

A population-based study conducted in the city of Pelotas, Rio Grande do Sul, found a percentage of depressive symptoms (15.2%) [23], similar to the findings in this investigation[6]. Such symptoms need to be identified early in elderly people, since understanding the mental health status of elderly people can contribute to the planning of care policies aimed at healthy aging[23].

Regarding the number of self-reported morbidities, similar data were found in another study, in which most elderly people reported having five or more diseases, which can negatively influence their self-image and safety[24]. In this field, nursing can intervene, addressing lifestyle and healthy choices. Health education can be a useful strategy, being a possibility of intervention in the elderly people's self-care[6,22].

The findings of this study corroborate a population-based survey in northern Minas Gerais, in which higher percentages of elderly people with negative/regular self-perceived health prevailed (57.5%)[25]. An investigation found that elderly people who had negative self-perceived health have a higher risk of mortality compared to those who reported having excellent health[6,25]. This finding reinforces the need for nurses to identify this information with elderly people, in order to understand the aspects that generate negative self-perception for health intervention.

The total resilience score of this investigation was above that obtained with community elderly people in Korea (50.26)[26] and China (57.91)[27]. The resilience score among elderly women was similar to the survey carried out in San Diego, California (75.7) [27], while for elderly men in Korea, it was below (54.66)[26]. Understanding resilience allows you to work with people's potential. With this, nursing can identify what it has latent, but that has not manifested itself, and, thus, help it to discover this potentiality by emerging a better possibility of coping[3].

Thus, as in this research, the highest total resilience score was associated with sex male in an investigation conducted in Korea ($p<0.001$)[26]. According to the culturally constructed model, being a man is learning to have independence since childhood, dealing with difficulties without asking for help[24]. This may be one of the factors that helps to understand the result obtained. In this perspective, the highest resilience score among men does not come only from the adversities present in the aging process, but also permeating their life trajectory[27]. In this context, it is necessary that nurses, during their professional practice, be sensitive to the social and cultural issues in which elderly people are inserted[28].

In this study, elderly people with less morbidity were associated with higher resilience scores[6].Living with morbidities requires adaptive behaviors, in addition to access to all the information necessary for their satisfactory management. Thus, it acts as an adversity, and as such, evokes mechanisms of resilience in the process of illness faced by people[29].

In this study, positive self-perceived health was associated with the best total resilience and sex female score. Faced with their own health care, women are more proactive than men. Being a man, culturally, is associated with invulnerability, strength and virility, characteristics incompatible with the demonstration of weakness represented by the demand for health services[6,28]. This reflects on male self-perceived health, which consequently also impacts differently on resilience[28]. On the contrary, women tend to seek health services regularly, including for preventive measures, feeling co-responsible for preventing the onset, evolution, or worsening of any disease, which can increase positive self-perceived health[6,30].

In an investigation conducted with community elderly people in Ermelino Matarazzo, São Paulo, it was found that women tend to have greater participation in AADL in a similar way to that found in this study[11]. AADL is a set of leisure activities carried out in free time, independent of work, capable of promoting companionship and socialization[6,11].

The highest resilience score was associated with male gender, positive self-perceived health, greater participation in AADL, absence of depression and having 0 to 4 self-reported diseases. Thus, AADL can be perceived as a positive influence in the context of adversity, favoring resilience[6].

Study limitations

Although the Connor Davidson scale is widely used, there is a scarcity of studies conducted exclusively with elderly individuals.

Contributions to nursing, health, and public policies

Recognizing the contribution of resilience to the paradigm shift in health sciences, shifting attention on the disease to the person's potential, can help to find coping responses[6]. Thus, resilience can promote human potential, contributing to nursing praxis through education and health promotion programs for this age group[31]. Moreover, understanding resilience over the course of life may be important in the coming years for the development of health policies related to the multiple aging process dimensions[32].

CONCLUSION

The mean resilience score was 78.06, 76.32 for females and 81.53 for males. The highest resilience scores for both women and men were associated with greater participation in AADLs and the absence of indicative of the presence of depressive symptoms.

However, for older women, the highest resilience scores were also associated with positive self-perceived health[6].

The results of this study indicate the need to develop preventive intervention strategies specific to each sex[6]. Thus, health professionals, from the initial assessment of elderly people, may include in their care plan, factors that contribute to the promotion of resilient characteristics. Educational activities, based on encouraging autonomy, self-care and self-esteem, enable better conditions for elderly people to adapt to adverse conditions and aging. Moreover, identifying the factors associated with resilience supports new planning and implementation studies, favoring resilience stimulation or development, in order to face the new life context in which elderly people are inserted[6].

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REFERENCES

1. Fontes AP, Neri AL. Estratégias de enfrentamento como indicadores de resiliência em idosos: um estudo metodológico. Ciên Saúde Colet. 2019;24:1265-76. doi: 10.1590/1413-81232018244.05502017
2. Santos MM, Araújo CLO. Perfil de idosas resilientes que participam de Centros de Convivência no Vale do Paraíba. Rev Kairos. 2015;18(1):391-404. doi:10.23925/2176-901X.2015v18i1p391-404
3. Silva LWS, Silva DMG, Silva DS, Lodovici FMM. A resiliência como constructo à práxis da Enfermagem: inquietações reflexivas. Rev Kairos. 2015;18(4):101-15. doi: 10.23925/2176-901X.2015v18i4p101-115
4. Fontes AP, Fattori A, D'Elboux MJ, GuarientoME. Resiliência psicológica: fator de proteção para idosos no contexto ambulatorial. Rev Bras Geriatr Gerontol. 2015;18(1):7-17. doi: 10.1590/1809-9823.2015.13201
5. Solano JPC, Bracher ESB, Faisal-Cury A, Ashmawi HA, Carmona MJC, Lotufo Neto F, et al. Factor structure and psychometric properties of the Connor-Davidson resilience scale among Brazilian adult patients. Sao Paulo Med J. 2016; 134(5):400-6. doi: 10.1590 / 1516-3180.2015.02290512
6. Rodrigues FR. Fatores relacionados à resiliência entre idosos [Dissertação]. Uberaba (Brasil): Universidade Federal do Triângulo Mineiro; 2018. 94 p.
7. Ministério da Saúde (BR), Conselho Nacional de Saúde. Resolução n. 466, de 12 de dezembro de 2012. Diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos [Internet]. Brasília (DF): Ministério da Saúde; 2012 [cited 2017 Aug 12]. Available from: http://conselho.saude.gov.br/resolucoes/2012/Reso466.pdf
8. Ministério da Saúde (BR), Secretaria de Atenção à Saúde, Departamento de Atenção Básica. Envelhecimento e saúde da pessoa idosa [Internet]. Brasília (DF): Ministério da Saúde; 2007 [cited 2019 Jul 12]. Available from: http://bvsms.saude.gov.br/bvs/publicacoes/abcad19.pdf
9. Bertolucci PHF, Brucki SMD, Campacci SR, Juliano Y. O Mini Exame do Estado Mental em uma população geral: impacto da escolaridade. Arq Neuro-Psiquiatr.1994;52(1):1-7. doi: 10.1590/S0004-282X1994000100001
10. Lino VTS, Pereira SRM, 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. doi: 10.1590/S0102-311X2008000100010
11. Santos RL, Virtuoso Jr JS. Confiabilidade da versão brasileira da Escala de Atividades Instrumentais da Vida Diária. Rev Bras Promoç Saúde. 2008;21(4):290-6. doi: 10.5020/18061230.2008.p290
12. Ribeiro LHM, Neri AL. Exercícios físicos, força muscular e atividades de vida diária em mulheres idosas. Ciên Saúde Colet. 2012;17(8):2169-80. doi:10.1590/S1413-81232012000800027
13. Oliveira EMD, Silva HS, Lopes A, Cachioni M, Falcão DVS, Batistoni SST, et al. Atividades Avançadas de Vida Diária (AAVD) e desempenho cognitivo entre idosos. Psico USF. 2015;20(1):109-20. doi: 10.1590/1413-82712015200110
14. Pinto Jr EP, Silva IT, Vilela ABA, Casotti CA, Pinto FJM, Silva MGC. Functional dependency and associated factor in elderly living with relatives. Cad Saúde Colet. 2016;24(4):404-12. doi: 10.1590/1414-462X201600040229
15. Carneiro JA, Cardoso RR, Durães MS, Guedes MCA, Santos FL, Costa, FM, et al. Frailty in the elderly: prevalence and associated factors. Rev Bras Enferm. 2017;70(4):780-5. doi: 10.1590/0034-7167-2016-0633
16. Pereira LC, Figueiredo MDLF, Beleza CMF, Andrade EMLR, Silva MJ, Pereira AFM. Predictors for the functional incapacity of the elderly in primary health care. Rev Bras Enferm. 2017;70(1):112-8. doi:10.1590/0034-7167-2016-0046
17. Silva MMA, Mambrini JVM, Peixoto SV, Malta DC, Lima-Costa MF. Uso de serviços de saúde por idosos brasileiros com e sem limitação funcional. Rev Saúde Públ. 2017;51(1 Suppl):1-10. doi: 10.1590/S1518-8787.2017051000243
18. Agne T, Lorenzatto LB, BusatoMA,Lutinski JA. Vulnerabilidades e risco em saúde: percepção dos idosos. Cinergis. 2016;18(1):29-34. doi: 10.17058/cinergis.v18i1.8122

19. Gross CB, Kolankiewicz ACB, Schmidt CR, Berlezi EM. Frailty levels of elderly people and their association with sociodemographic characteristics. Acta Paul Enferm. 2018;31(2):209-16. doi: 10.1590/1982-0194201800030

20. Lima PV, Valença TDC, Reis LA. Envelhecer com dependência funcional: construindo estratégias de enfrentamento. Rev Bras Pesqui Saúde [Internet]. 2017 [cited 2019 Jul 12];17(2):96-101. Available from: http://www.periodicoseletronicos.ufma.br/index.php/revistahuufma/article/view/6082

21. Berlezi EM, Farias AM, Dallazen F, Oliveira KR, Pillatt AP, Fortes CK. Como está a capacidade funcional de idosos residentes em comunidades com taxa de envelhecimento populacional acelerado? Rev Bras Geriatr Gerontol. 2016;19(4):643-52. doi: 10.1590/1809-98232016019.150156

22. Santos GLA, Santana RF, Broca PV. Capacidade de execução das atividades instrumentais de vida diária em idosos: etnoenfermagem. Esc Anna Nery. 2016;20(3). doi: 10.5935/1414-8145.20160064

23. Hellwig N, Munhoz TN, Tomasi E. Sintomas depressivos em idosos: estudo transversal de base populacional. Ciên Saúde Colet. 2016;21:3575-84. doi: 10.1590/1413-812320152111.19552015

24. Nunes JD, Saes MO, Nunes BP, Siqueira FCV, Soares DC, Fassa MEG, et al. Functional disability indicators and associated factors in the elderly: a population-based study in Bagé, Rio Grande do Sul, Brazil. Epidemiol Serv Saude. 2017;26(2):295-304. doi: 10.5123/S1679-49742017000200007

25. Medeiros SM, Silva LSR, Carneiro JA, Ramos GCF, Barbosa ATF, Caldeira AP. Factors associated with negative self-rated health among non-institutionalized elderly in Montes Claros, Brazil. Ciên Saúde Colet. 2016;21(11):3377-86. doi: 10.1590/1413-812320152111.18752015

26. You S, Park M. Resilience protected against suicidal behavior for men but not women in a community sample of older adults in Korea. Frontiers Psychol. 2017;8:401. doi: 10.3389/fpsyg.2017.00401

27. Lu C, Yuana L, Lin W, Zhou Y, Pan S. Depression and resilience mediates the effect of family function on quality of life of the elderly. Arch Gerontol Geriatr. 2017;71:34-42. doi: 10.1016/j.archger.2017.02.011

28. Pinto BK, Muniz RM, Schwartz E, Budó MLD, Heck RM, Lange C. Identidade do homem resiliente no contexto de adoecer por câncer de próstata: uma perspectiva cultural. Rev Bras Enferm. 2014;67(6):942-48. doi: 10.1590/0034-7167.2014670612

29. Lemos CMM, Moraes DW, Pellanda LC. Resiliência em Pacientes Portadores de Cardiopatia Isquêmica. Arq Bras Cardiol. 2016;106(2):130-5. doi: 10.5935/abc.20160012

30. Levorato CD, Mello LM, Silva AS, Nunes AA. Fatores associados à procura por serviços de saúde numa perspectiva relacional de gênero. Ciên Saúde Colet. 2014;19:1263-74. doi: 10.1590/1413-81232014194.01242013

31. Santos LG et al. Resilience, quality of life and symptoms of depression among elderlies receiving outpatient care. Rev Latino-Am Enfermagem. 2019;27. doi: 10.1590/1518-8345.3133.3212

32. Lemes MR, Alves LCCB, Yamaguchi MU. Level of resilience in the elderly according to the Connor-Davidson scale: a systematic review. Rev Bras Geriatr Gerontol. 2019;22(3). doi: 10.1590/1981-22562019022.180209