

## SOCIODEMOGRAPHIC, HEALTH AND SERVICES CHARACTERISTICS USED BY HOSPITALIZED ELDERLY

Características sociodemográficas, de saúde e de serviços utilizados por idosos internados

Características sociodemográficas, sanitarias y de servicios utilizadas por ancianos hospitalizados

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### ABSTRACT

**Objective:** to analyze elderly individuals from different age groups admitted to a teaching hospital, according to sociodemographic characteristics, health and services used. **Methods:** cross-sectional study, with 158 elderly hospitalized in a university hospital, with dependent variable the age: individuals from 60 to 70 years and more than 70 years; and as an independent variable: sociodemographic, health and service used conditions. Data were analyzed by the Fisher's Exact and chi-square tests. **Results:** patients older than 70 years had significantly lower level educational, absence of spouse, presence of multimorbidities, longer hospitalization, ICU hospitalization and need to help with daily living at home, to than the younger people ( $p < 0.05$ ). **Conclusion:** knowledge of the differences between the different age groups made it possible to understand the fragilities of each group and fostered important questions for understanding the sociodemographic, health and services context used by this population.

**DESCRIPTORS:** Aged; Health profile; Health services; Tertiary healthcare; Hospitalization.

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## RESUMO:

**Objetivo:** analisar idosos de diferentes estratos etários internados em um hospital de ensino, segundo características sociodemográficas, de saúde e de serviços utilizados. **Métodos:** estudo transversal com 158 idosos internados, num hospital universitário, com variável dependente o extrato etário: indivíduos de 60 a 70 anos e com mais de 70 anos; e como variáveis independentes: condições sociodemográficas, de saúde e serviços utilizados. Analisou-se os dados pelos testes Exato de Fisher e qui-quadrado. **Resultados:** idosos com mais de 70 anos apresentaram significativamente menor escolaridade, ausência do cônjuge, presença de multimorbidades, maior tempo de internação, internação em UTI e necessidade de ajuda para realização das atividades de vida diárias no domicílio, em detrimento aos mais jovens ( $p < 0,05$ ). **Conclusão:** o conhecimento das diferenças entre os diferentes grupos etários possibilitou conhecer as fragilidades de cada grupo e fomentou questões importantes para a compreensão do contexto sociodemográfico, de saúde e de serviços utilizados por esta população.

**DESCRITORES:** Idoso; Perfil de saúde; Serviços de saúde; Atenção terciária à saúde; Hospitalização.

## RESUMEN:

**Objetivo:** analizar a personas mayores de diferentes grupos de edad admitidos en un hospital docente, según las características sociodemográficas, de salud y de servicios utilizados. **Método:** estudio cuantitativo, transversal, con 158 de edad avanzada hospitalizados en un hospital universitario, con variable dependiente la edad: individuos de 60 a 70 años y más de 70 años; Y como variable independiente: condiciones sociodemográficas, de salud y servicios utilizados. Los datos fueron analizados por los tests Exacto de Fisher y chi-cuadrado. **Resultados:** los ancianos con más de 70 años presentaron significativamente menor escolaridad, ausencia del cónyuge, presencia de multimorbidades, mayor tiempo de internación, internación en UTI y necesidad de ayuda para la realización de las actividades de vida diarias en el domicilio, en detrimento de los más jóvenes ( $p < 0,05$ ). **Conclusión:** el conocimiento de las diferencias entre los diferentes grupos de edad permitió conocer las fragilidades de cada grupo y fomentó cuestiones importantes para la comprensión del contexto sociodemográfico, de salud y de servicios utilizados por esta población.

**DESCRIPTORES:** Anciano; Perfil de salud; Servicios de salud; Atención terciaria de salud; Hospitalización.

## INTRODUCTION

Population aging brings with it the challenge of living longer, healthier and with better quality of life. This challenge requires the development of public policies that address aging focusing on promoting health, autonomy, well-being and independence.<sup>1</sup> Becoming an active elderly requires physical, social and mental well-being throughout the course. It can be achieved through active participation in society, taking into account personal needs, desires and capacities.<sup>2</sup>

In this context, in order to encourage elderly individuals, provide a quality of life and prolong the onset of disease, a set of actions and policies are proposed worldwide, seeking to promote active and healthy aging, prevention of chronic diseases as well as expanding access to quality long-term

palliative care.<sup>3</sup> In fact, there is a consensus in the literature on noncommunicable chronic diseases (NCDs) regarding the higher prevalence of diseases and the potential for aging-related weaknesses.<sup>4</sup>

In addition to NCDs, the weaknesses of elderly subjects can also be explained by individual sociodemographic conditions such as education, occupation, gender, health conditions, access to health goods and services, information, income and housing and behavioral factors such as hygiene, alcohol abuse, smoking, lack of exercise, improper diet and obesity.<sup>5</sup>

Still, the presence of frailty and NCDs, when not well monitored, contribute to the increase of hospitalizations and, when there are associated comorbidities, the care provided needs to be greater,<sup>6</sup> and more frequent hospitalizations and longer bed occupancy significantly burdening health systems and institutions and posing a challenge for health authorities.<sup>7</sup>

From this perspective, knowing the profile of elderly inpatients helps the processes of improving the quality of healthcare. Knowledge about the types of services used by this population enables the detection of weaknesses in the elderly care network, and may assist health managers in planning improvement strategies. Moreover, the analysis of older people from advanced age groups, due to their higher risk of complications and the presence of multimorbidity, may provide health care with greater safety and therapeutic individuality.

In this sense, the present study aims to analyze elderly people of different age groups admitted to a teaching hospital, according to sociodemographic, health and service characteristics.

## METHODS

### Type of study, scope and sampling

This is a quantitative, cross-sectional study using data obtained through telephone interviews with 158 hospitalized elderly patients, caregivers or family members, from January to July 2018, in a university hospital in the state of Paraná.

To determine the sample size, we considered the average monthly number of hospitalized elderly patients ( $n = 60$ ) multiplied by 6 (estimated number of months for collection) ( $n = 360$ ), 95% confidence interval and design effect 1, for a prevalence of 88% of hospitalized adults with positive perceptions about the care and support provided by the hospital staff, the object of the research macroproject, sponsor of the present study. To the total calculated ( $n = 113$ ) were added 45 individuals (40%), considering the possible losses and in order to enhance the sample, resulting in the final sample of 158 subjects.

The eligibility criteria were: being over 60 years old; patients who remained hospitalized in the evaluated hospital;

family member or caregiver who has fully followed the hospitalization process (when the individual himself was unable to answer the questionnaire); have been discharged within 30 days of the interview. Exclusion criteria were patients who: died; did not have telephone contact in medical records; have been readmitted; did not answer the call after 3 attempts at different times and days; did not consent to participate in the study.

### Data Collection

To obtain patient information, a questionnaire was developed containing social characteristics and questions related to the object of the study, based on instruments proposed by the Brazilian Ministry of Health and articles.<sup>8-10</sup>

Prior to data collection, the hospital's computer system was accessed to list eligible patients and telephone contacts. The data were collected through telephone calls that were directed to the patient himself, caregiver or family member. All steps were performed by previously trained researchers.

After explanation about the study, individuals who agreed to participate in the research were then considered. The average time of the interviews was 20 minutes.

### Data analysis

The age group was considered as dependent variable: individuals from 60 to 70 years old and individuals over 70 years old, and as independent variable sociodemographic

and health conditions and inpatient and outpatient services as well as care at home.

To investigate the association between the surveyed items, the non-parametric Fisher Exact and chi-square tests were used. P-value <0.05 was considered and indication that there was an association between the studied variables.

### Research Ethics

The research was approved by the Research Ethics Committee of a Higher Education Institution (Opinion No. 2,461,494 / 2018; CAAE: 81453417.1.0000.0105, approved on January 8, 2018), respecting the parameters of the resolution 466 / 12 of the National Health Council.

## RESULTS

The sample was predominantly female, white, married or in a stable union, with low education, with income between one and two minimum wages, who live with other people and in the same municipality of the institution where they were hospitalized (Table 1).

Table 1 shows that the predominant marital status of the elderly up to 70 years old was married or stable union 73 (69%), while among individuals over 70 years old, 22 (42%) were married and 22 (42%) widowed (p = 0.0028). Furthermore, older people over 70 years showed significantly lower educational level than those up to 70 years (p = 0.0325).

**Table 1** - Sociodemographic profile of elderly patients admitted to a teaching hospital. Ponta Grossa, PR, Brazil, 2018

Variable	Class	60 - 70 yrs n (%)	> 70 yrs n (%)	Total n (%)
<b>Gender (p&gt;0.05)</b>	Male	52(49)	23(44)	75(47)
	Female	54(51)	29(56)	83(53)
<b>Skin color (0.37)</b>	White	70(66)	38(73)	108(68)
	Others	36(34)	14(27)	50(32)
<b>Civil status (0.0028)</b>	Unmarried	3(3)	5(10)	8(5)
	Married/ stable union	73(69)	22(42)	95(60)
	Divorced	9(8)	3(6)	12(8)
	Widower	21(20)	22(42)	43(27)
<b>Lives alone (p&gt;0.05)</b>	Yes	13(12)	9(17)	136(86)
	Not	93(88)	43(83)	22(14)
<b>Education (0.0325)</b>	Not literate	4(4)	3(6)	7(4)
	1 to 5 years of study	66(62)	40(77)	106(67)
	6 to 9 years of study	21(20)	2(4)	23(15)
	10 to 12 years of study	10(9)	7(13)	17(11)
	Higher education (complete e incomplete)	5(5)	0(0)	5(3)
<b>Monthly income (0.363)</b>	>1 minimum wage*	18(17)	10(19)	28(18)
	1 > 2 minimum wage*	51(48)	31(60)	82(52)
	2 ≥ minimum wage*	28(26)	8(15)	36(23)
	Don't know / Didn't answer	9(8)	3(6)	12(8)
<b>Municipality of residence (0.488)</b>	Same as institution	65(61)	35(67)	100(63)
	Other	41(39)	17(33)	58(37)

Source: Research Data

Regarding health characteristics of hospitalized elderly, most had chronic disease 83 (78%). A large number of those aged 60 to 70 years had a single disease (51 - 61%), unlike individuals older than 70 who had multimorbidities ( $p = 0.0006$ ). Still, most were not smokers, alcoholics, obese and regular practitioners of physical activity (Table 2).

**Table 2** - Health characteristics of elderly in a teaching hospital, according to age group. Ponta Grossa, PR, Brazil, 2018

Variable (p value)	Class	60 - 70 yrs n (%)	> 70 yrs n (%)	Total n (%)
<b>Presence of chronic disease (p&gt;0.05)</b>	Yes	83(78)	41(79)	124(78)
	No	23(22)	11(21)	34(22)
<b>Multimorbidity (0.0006)</b>	No	51(61)	11(27)	62(39)
	Yes, 2 chronic diseases	18(22)	12(28)	30(19)
	Yes, more than 2 chronic diseases	14(17)	18(44)	32(20)
<b>Smoking (0.253)</b>	Yes	13(12)	3(6)	16(10)
	Ex smoker	37(35)	24(46)	61(39)
	No	56(53)	25(48)	81(51)
<b>Ethylist (0.775)</b>	Yes	1(1)	0(0)	1(1)
	Former alcoholic	19(18)	9(17)	28(18)
	No	86(81)	43(83)	129(82)
<b>Sedentary (0.213)</b>	Yes	66(62)	38(73)	104(66)
	No	40(38)	14(27)	54(34)
<b>Obesity (0.133)</b>	Yes	23(22)	6(12)	29(18)
	No	83(78)	46(88)	129(82)

Source: Research Data

Regarding the use of health services among the interviewees, older people remained longer in hospital ( $p = 0.0005$ ), were more often in the ICU (Table 3), and at home needed more help to perform their daily activities when compared to younger elderly ( $p < 0.05$ ) (Table 5). The sector with the highest demand for hospitalization was the surgical clinic, with hospitalization times of more than 5 days, more specifically ranging from 01 to 29 days. A small portion went through the ICU, staying between 01 and 25 days and had a history of previous hospitalizations (Table 3).

In addition, the majority of the elderly needed social worker's support during hospitalization, at the post-discharge was scheduled to return to the hospital, went to the specialist (Table 3), returned home and needed help to perform daily activities (Table 5). However, only a small portion were referred and sought basic health unit after hospital discharge (Table 4).

**Table 3** - Health services used by the elderly who were admitted to a teaching hospital, according to age group. Ponta Grossa, PR, Brazil, 2018

Variable (p value)	Class	60 - 70 yrs n (%)	> 70 yrs n (%)	Total n (%)
Inpatient sector (0.258)	Medical clinic	12(11)	12(23)	24(15)
	Cirurgical clinic	81(76)	33(63)	114(72)
	Infectious disease clinic	2(2)	1(2)	3(2)
	Neurology	11(10)	6(12)	17(11)
Lenght of stay (0.0005)	Up to 5 days	73(69)	20(38)	93(59)
	More than 5 days	33(31)	32(62)	65(41)
ICU admission (0.004)	Yes	12(11)	16(31)	28(18)
	No	94(89)	36(69)	130(82)
Length of stay in ICU (p>0.05)	Up to 5 days	9(8)	12(23)	21(13)
	More than 5 days	3(3)	4(8)	7(4)

Variable (p value)	Class	60 - 70 yrs n (%)	> 70 yrs n (%)	Total n (%)
Previous hospitalization (0.09)	Yes	25(24)	19(37)	25(16)
	No	81(76)	33(63)	81(51)
Needed care with social worker on admission (p>0.05)	Yes	84(79)	42(81)	126(80)
	No	22(21)	10(19)	32(20)
Scheduling of return to hospital after discharge (p>0.05)	Yes	98(92)	46(88)	144(91)
	No	6(6)	4(8)	10(6)
	Didn't need	2(2)	2(4)	4(3)

Source: Research Data

**Table 4** - Health services used by the elderly who were admitted to a teaching hospital, according to age group. Ponta Grossa, PR, Brazil, 2018

Variable (p value)	Class	60 - 70 yrs n (%)	> 70 yrs n (%)	Total n (%)
Referral to health facility (p>0.05)	Yes	18(17)	8(15)	62(39)
	No	88(83)	44(85)	96(61)
After hospital discharge he/she went to the health unit (p>0.05)	Yes	20(19)	9(17)	29(18)
	No	86(81)	43(83)	129(82)
Referral to secondary care (0.07)	Yes	23(22)	17(33)	40(25)
	No	79(75)	30(58)	109(69)
	Didn't need	4(4)	5(10)	9(6)
After hospital discharge he/she went to the specialist (0.79)	Yes	72(68)	38(73)	110(70)
	No	32(30)	13(25)	45(28)
	Didn't need	2(2)	1(2)	3(2)

Source: Research Data

**Table 5** - Need for support by the elderly who were admitted to a teaching hospital, according to age group. Ponta Grossa, PR, Brazil, 2018

Variable (p value)	Class	60 - 70 yrs n (%)	> 70 yrs n (%)	Total n (%)
When he/she was discharged, he/she returned home (p>0.05)	Yes	98(92)	48(92)	146(92)
	No	8(8)	4(8)	12(8)
At home, he/she needed someone's help to perform his/her daily activities (0.0313)	Yes	65(61)	41(79)	106(67)
	No	41(39)	11(21)	52(33)
Needed Someone's Guidance to Follow Medical Recommendations (0.48)	Yes	34(32)	20(38)	54(34)
	No	72(68)	32(62)	104(66)

Source: Research Data

## DISCUSSION

The significant increase in the number of widowers in the age group over 70 corroborates the literature,<sup>11-12</sup> finding explained by the higher mortality related to advancing age. Health professionals should be aware of this condition during the care process, since widowhood is related to greater mental fragility, being a risk factor for worse general health, functional limitation,<sup>13</sup> greater use of health services, low life satisfaction, and stroke.<sup>14</sup> Moreover, living alone, widowed older people may be more prone to falls and medication errors, which in turn may worsen their health, resulting in dependence, loss of autonomy, immobilization and cognitive impairment.<sup>15</sup>



Another sociodemographic variable with significant difference between age groups was education, with worse indicators in older elderly. This finding may be related to the historically restricted access to formal education for this population group and to economic and cultural issues, such as the supremacy of the dedication to work in rural areas.<sup>16</sup> Studies show that the higher the educational level, the greater the probability of better income and the ability to pay for medical expenses through private medical arrangements, while people with less education and income tend to rely more often on public health services.<sup>5,17</sup> The positive relationship between high socioeconomic status, educational standards and better health conditions is well established by the world literature and extends to elderly subjects.<sup>18</sup>

Regarding the difference in health status between the groups investigated, a significant increase in multimorbidity is observed in the elderly over 70 years, as identified in other studies.<sup>19,20</sup> The occurrence of two or more chronic diseases in the same individual is considered multimorbidity and can be considered a public health problem, given the negative impact on quality and life expectancy of the elderly.<sup>19</sup>

Multimorbidity is associated with advanced age, female gender, low income and negative consequences related to it are numerous, such as: functional decline, decreased quality of life, increased demand for health services, and consequently higher public health costs.<sup>19</sup>

Although the prevention of multimorbidities is strongly related to physical activity according to the capacity of each elderly person, there is a natural tendency to reduce the level of physical activity with increasing age, especially among the elderly.<sup>21,22</sup> This physical inactivity can be partly explained by the physiological aging process itself which, over the years, leads to decreased muscle mass, loss of bone mass and muscle atrophy, which make it difficult to engage in physical activity.<sup>23</sup>

Data shows that there was a significant increase in length of stay and the need for ICU use among elderly over 70 years of age. The time, frequency and quality of hospitalization of elderly individuals have been related to the loss of their autonomy, fragility and functional difficulties. Specifically, ICU hospitalization is related to the increase in the number of adverse events and increased mortality.<sup>7,24,25</sup> In this sense, the need for careful evaluation of the decision of hospitalization and the appropriate moment of discharge of elderly of advanced age is reinforced, ensuring a minimum length of stay, reduction of health complications and hospital costs.<sup>25</sup>

Finally, data indicates that, after hospital discharge, elderly of more advanced age needed more help at home when compared to elderly under 70 years, a result also observed in other studies.<sup>14,26</sup>

Longevity, due to advancing age, ends up decreasing their autonomy and increasing their dependence to perform daily activities, using the help of paid caregivers or family

members. The family is considered very important both in performing these activities and in providing emotional support as well.<sup>27</sup> In this context, the level of care dependence can be determined by the degree of disability of the patient, and the interaction of the health team with the disabled individual, their caregivers and family members is fundamental.<sup>28</sup>

Healthcare team plays an extremely important role in informing and guiding family members and caregivers about the necessary care for the elderly at home. Therefore, it is necessary to evaluate the situation, including the degree of frailty of the elderly, the strength of the caregiver and understand their problems and needs in order to establish the degree of dependence of the elderly. Health professional should also recommend humanized care approach based on family well-being and the functional response of the elderly, recommending extra attention to the elderly.<sup>29</sup>

In this context, it is essential that health professional instructs the family caregiver to seek Basic Health Unit (BHU) after hospital discharge, because it will be up to this unit to perform home visits and provide guidance on the best form of care for the particular elderly in question.<sup>30</sup> Thus, we highlight the importance of a well coordinated network of health care for the elderly, that includes the families of long-living elderly, with the health professionals assuming a fundamental emotional and care role in the preparation, promotion of autonomy and family support.

## CONCLUSION

This study has limitations that should be considered. For example it was conducted in a single university hospital. The information was extracted from medical records and self-reported via telephone calls by patients who were hospitalized, which presupposes a positive relationship of access to the hospital. This fact may have indirectly excluded users with difficulty in accessing the health network, while hospitalization may have increased the chance of diagnosing diseases. New studies with longitudinal information, with a larger sample, which considers people with difficulty in accessing hospital services, that investigate both public and private services and include other regions of the country are important for extrapolating the results to the Brazilian population.

Comparing elderly people up to 70 years old to those over 70 years of age, the latter group had lower educational levels, more frequently absent spouse, higher presence of multimorbidities, greater length of stay, more frequent ICU stay and greater need for help to perform tasks and daily living activities at home.

Knowledge of the differences between the different age groups made it possible to identify weaknesses of each group and raised important questions for the understanding of sociodemographic, health and service context of this population. We believe that this understanding will bring

implications for professional practice, as it will enable planning of measures to improve health care for the elderly, and may positively impact the management of health services and the quality of care provided to this population.

## REFERENCES

1. March i FR, Alves GG, Aerts DRGdeC, CaMarch a S. O processo de envelhecimento e a saúde: o que pensam as pessoas de meia-idade sobre o tema. *Rev Bras Geriatr Gerontol*. [Internet]. 2016 [Accessed 2019 March 07];19(1):35-44. [http://www.scielo.br/pdf/rbgg/v19n1/pt\\_1809-9823-rbgg-19-01-00035.pdf](http://www.scielo.br/pdf/rbgg/v19n1/pt_1809-9823-rbgg-19-01-00035.pdf)
2. ILC Brasil(Centro Internacional de Longevidade) Brasil. *Envelhecimento Ativo: Um March co Político em Resposta à Revolução da Longevidade*. [Internet]. Rio de Janeiro: ILC-Brasil; 2015. [Accessed 2019 March 07]. <http://ilcbrazil.org/portugues/wpcontent/uploads/sites/4/2016/02/Envelhecimento-Ativo.pdf>
3. United Nations. Department of Economic and Social Affairs. Population Division. *World Population Ageing 2017*. [Internet]. New York: United Nations; 2017. [Accessed 2019 March 07]. [http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017\\_Highlights.pdf](http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017_Highlights.pdf)
4. Malta DC, Bernal RTI, Lima MG, Araújo SSC, da Silva MMA, Freitas MideF, et al. Doenças crônicas não transmissíveis e a utilização de serviços de saúde: análise da Pesquisa Nacional de Saúde no Brasil. *Rev Saude Publica*. [Internet]. 2017 [Accessed 2019 March 07]; 51(Sup1):1s-10s. [http://www.scielo.br/pdf/rsp/v51s1/pt\\_0034-8910-rsp-S15188782017051000090.pdf](http://www.scielo.br/pdf/rsp/v51s1/pt_0034-8910-rsp-S15188782017051000090.pdf)
5. Leite MT, Pai SD, Quintana JdeM, da Costa MC. Doenças crônicas não transmissíveis em idosos: saberes e ações de agentes comunitários de saúde. *J res: fundam care online*. [Internet]. 2015 [Accessed 2018 Oct 22];7(2):2263-2276. <http://www.redalyc.org/html/5057/505750946007/>
6. Hopman P, Heins MJ, Korevaar JC, Rijken M, Schellevis FG. Health care utilization of patients with multiple chronic diseases in the Netherlands: Differences and underlying factors. *Eur J Intern Med*. [Internet]. 2016 [Accessed 2018 Oct 22];35(11):44-50. [https://www.ejinme.com/article/S0953-6205\(16\)30288-6/pdf](https://www.ejinme.com/article/S0953-6205(16)30288-6/pdf)
7. Toffoleto MC, Barbosa RL, Andolhe R, de Oliveira EM, Ducci AJ, Padilha KG. Factors associated with the occurrence of adverse events in critical elderly patients. *Rev Bras Enferm*. [Internet]. 2016 [Accessed 2018 Oct 22];69(6):1039-45. <http://www.scielo.br/pdf/reben/v69n6/0034-7167-reben-69-06-1039.pdf>
8. Brasil. Ministério da Saúde. Programa Nacional de Avaliação dos serviços de saúde – PNASS. [Internet]. Brasília: Ministério da Saúde; 2015. [Accessed 2018 Oct 24] [http://bvms.saude.gov.br/bvs/publicacoes/pnass\\_programa\\_nacional\\_avaliacao\\_servicos.pdf](http://bvms.saude.gov.br/bvs/publicacoes/pnass_programa_nacional_avaliacao_servicos.pdf)
9. de Paiva SMA, Gomes ELR. Assistência hospitalar: avaliação da satisfação dos usuários durante seu período de internação. *Rev Lat Am Enfermagem*. [Internet]. 2007 [Accessed 2018 Oct 22]; 15(5):973-9. <https://www.revistas.usp.br/rlae/article/view/2478>
10. dos Santos FC, da Rosa PV, da Rosa LHT, Pribbernow SCM. Avaliação do risco de internação hospitalar de idosos da comunidade no município de Porto Alegre. *Estud interdiscipl envelhec*. [Internet]. 2014 [Accessed 2018 Oct 22];19(3):839-852. <https://seer.ufrgs.br/RevEnvelhecer/article/view/38139/33289>
11. Campolina AG, Adami F, Santos JLF, Lebrão ML. A transição de saúde e as mudanças na expectativa de vida saudável da população idosa: possíveis impactos da prevenção de doenças crônicas. *Cad Saude Publica*. [Internet]. 2013 [Accessed 2018 Oct 22]; 29(6):1217-1229. [http://www.scielo.br/scielo.php?pid=S0102-311X2013000600018&script=sci\\_abstract&lng=pt](http://www.scielo.br/scielo.php?pid=S0102-311X2013000600018&script=sci_abstract&lng=pt)
12. Gonçalves LTH, Leite MT, Hildebrandt LM, Bisogno SC, Biasuz S, Falcade BL. Convívio e cuidado familiar na quarta idade: qualidade de vida de idosos e seus cuidadores. *Rev Bras Geriatr Gerontol*. [Internet]. 2013 [Accessed 2018 Oct 22];16(2):315-325. <http://www.scielo.br/pdf/rbgg/v16n2/11.pdf>
13. Smith M, Haedtke C, Shibley D. Late life depression detection: An evidence-based guideline. *J Gerontol Nurs*. [Internet]. 2015 [Accessed 2018 Oct 22];41(2):18-25. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4440549/>
14. Ho S-H. A comparative assessment of emergency medicine between the widowers and widows among the elderly in Taiwan. *Economics Bulletin*. [Internet]. 2015 [Accessed 2018 Oct 22];35(3):1795-1808. <https://ideas.repec.org/a/ebl/ecbull/eb-13-00773.html>
15. Shin SH, Kim G, Park S. Widowhood Status as a Risk Factor for Cognitive Decline among Older Adults. *Am J Geriatr Psychiatry*. [Internet]. 2018 [Accessed 2018 Oct 22];26(7):778-787. <https://www.ncbi.nlm.nih.gov/pubmed/29748078>
16. Willig MH, Lenardt MH, Caldas CP. A longevidade segundo histórias de vida de idosos longevos. *Rev Bras Enferm*. [Internet]. 2015 [Accessed 2018 Oct 22];68(4):697-704. [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0034-71672015000400697](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-71672015000400697)
17. Cotlear D, Gómes-Dantés O, Knaul F, Atun R, Barreto ICHC, Cetrángolo O, et al. Overcoming social segregation in health care in Latin America. *The Lancet*. [Internet]. 2015 [Accessed 2018 Oct 22]; 385(9974):1248-1259. <https://www.ncbi.nlm.nih.gov/pubmed/25458715>
18. da Cruz MS, Araujo JA, da Paixão AN. Family structure and its impacts on the restrictions of self-perception of elderly health levels in Brazil. *Cien Saude Colet*. [Internet]. 2018 [Accessed 2018 Oct 22];23(8):2751-2762. [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1413-81232018000802751](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232018000802751)
19. AMarch al TLM, AMarch al CdeA, de Lima NS, Herculano PV, do Prado PR, Monteiro GTR. Multimorbidade, depressão e qualidade de vida em idosos atendidos pela Estratégia de Saúde da Família em Senador GuioMarch d, Acre, Brasil. *Cien Saude Colet*. [Internet]. 2018 [Accessed 2018 Oct 22]; 23(9):3077-3084. <http://www.scielo.br/pdf/csc/v23n9/1413-8123-csc-23-09-3077.pdf>
20. Gavasso WC, Beltrame V. Capacidade funcional e morbidades referidas: uma análise comparativa em idosos. *Rev Bras Geriatr Gerontol*. [Internet]. 2017 [Accessed 2018 Oct 22];20(3):399-409. [http://www.scielo.br/scielo.php?pid=S1809-98232017000300398&script=sci\\_arttext&lng=pt](http://www.scielo.br/scielo.php?pid=S1809-98232017000300398&script=sci_arttext&lng=pt)
21. de Vries NM, Van Ravensberg CD, Hobbelen JS, Olde Rikkert MG, Staal JB, Nijhuis-van der Sanden MW. Effects of physical exercise therapy on mobility, physical functioning, physical activity and quality of life in community-dwelling older adults with impaired mobility, physical disability and/or multi-morbidity: a meta-analysis. *Ageing Res Rev*. [Internet]. 2012 [Accessed 2018 Oct 22];11(1):136-49. <https://www.ncbi.nlm.nih.gov/pubmed/22101330>
22. Naci H, Loannidis JPA. Comparative effectiveness of exercise and drug interventions on mortality Oct comes: metaepidemiological study. *Br J Sports Med*. [Internet]. 2013 [Accessed 2018 Oct 22];347: f5577. <https://www.ncbi.nlm.nih.gov/pubmed/26476429>
23. Pereira LdeF, Lenardt MH, Michel T, Carneiro NHK, Bento LdeF. Retrato do perfil de saúde-doença de idosos longevos usuários da atenção básica de saúde. *Rev enferm UERJ*. [Internet]. 2015 [Accessed 2018 Oct 22];23(5):649-55. <https://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/5069>
24. Bordin D, Cabral LPA, Fadel CB, dos Santos CB, Grden CRB. Fatores associados à internação hospitalar de idosos: estudo de base nacional. *Rev bras geriatr gerontol*. [Internet]. 2018 [Accessed 2018 Oct 22]; 21(4):439-446. [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S180998232018000400439&lng=pt&nrm=iso](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S180998232018000400439&lng=pt&nrm=iso)
25. da Silva JBVB, Pedreira LC, Santos JLP, Barros CSMA, David RAR. Perfil clínico de longevos em uma unidade de terapia intensiva. *Acta paul enferm*. [Internet]. 2018 [Accessed 2018 Oct 22];31(1):39-45. [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S010321002018000100039&lng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S010321002018000100039&lng=en)
26. Fernandes BL, Borgato MH. A viuvez e a saúde dos idosos: uma revisão integrativa. *Rev Kairos*. [Internet]. 2016 [Accessed 2018 Oct 22];19(3):187-204. <https://revistas.pucsp.br/index.php/kairos/article/view/32957>

27. Michel T, Lenardt MH, Willig MH, Alvarez AM. Do real ao ideal - o (des)cuidar da saúde dos idosos longevos. Rev Bras Enferm.[Internet]. 2015 [Accessed 2018 Oct 22]; 68(3):398-405. [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0034-71672015000300398](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-71672015000300398)
28. March tins DMC, Castro JGD. Idosos Dependentes de Cuidados Domiciliares: Revisão de literatura. Revista Desafios.[Internet]. 2018 [Accessed 2018 Oct 22];5(2):91-102. <https://sistemas.uft.edu.br/periodicos/index.php/desafios/article/view/4980>
29. Casagrande LP, de Llano PMP, dos Santos F, Lange C, Lemões MAM, de Avila JA. Assistência de enfermagem na qualidade de vida do idoso: revisão integrativa. Rev Saude Com.[Internet]. 2015 [Accessed 2018 Oct 22];11(4):408-417. <http://periodicos2.uesb.br/index.php/rsc/article/download/384/312/>
30. Rodrigues RAP, March ques S, Kusumota L, dos Santos EB, Fhon JRdaS, Fabrício-Wehbe SCC. Transição do cuidado como idoso após acidente vascular cerebral do hospital para casa. Rev Lat Am Enfermagem.[Internet]. 2013 [Accessed 2018 Oct 22]; 21(Spec):216-224.[http://www.scielo.br/pdf/rlae/v21nspe/pt\\_27.pdf](http://www.scielo.br/pdf/rlae/v21nspe/pt_27.pdf)

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