

IMPACT OF HYPERTENSION ON QUALITY OF LIFE OF ELDERLY IN RURAL AREA**IMPACTO DA HIPERTENSÃO ARTERIAL NA QUALIDADE DE VIDA DE IDOSOS RESIDENTES NA ZONA RURAL****IMPACTO DE LA HIPERTENSÓN ARTERIAL EN LA CALIDAD DE VIDA DE LOS RESIDENTES MAYORES EM AREA RURAL**

Mariana Mapelli de Paiva¹, Flavia Aparecida Dias², Nayara Paula Fernandes Martins Molina³, Darlene Mara dos Santos Tavares⁴

ABSTRACT

Aimed to describe the variables related to arterial hypertension (SAH) and compare with the scores of quality of life (QOL) among elderly people with and without hypertension in rural area of Uberaba, MG. Were comprised two groups: elderly patients with SAH (353) and without hypertension (353). We used the following instruments: structured, World Health Organization Quality of Life – BREF (WHOQOL-BREF), World Health Organization Quality of Life Assessment for Older Persons (WHOQOL-OLD). Held descriptive analysis and Student's t-test ($p < 0.05$). The elderly with hypertension had been diagnosed for less than 10 years, through medical examination of routine, hip circumferences were used blood pressure, used medication and drank little salt. The elderly with hypertension had lower scores quality of life in relation to those without hypertension. It is necessary to take measures to minimize the impacts that cause high blood pressure in the QOL.

Descriptors: Hypertension, Quality of life, Elderly, Nursing, Geriatric Nursing.

RESUMO

Objetivou descrever as variáveis relacionadas com a hipertensão arterial sistêmica (HAS) e comparar com os escores de qualidade de vida (QV) entre idosos com e sem HAS da zona rural de Uberaba – MG. Foram constituídos dois grupos: idosos com HAS (353) e sem HAS (353). Utilizaram-se os instrumentos: estruturado, *World Health Organization Quality of Life – BREF* (WHOQOL-BREF), *World Health Organization Quality of Life Assessment for Older Persons* (WHOQOL-OLD). Realizou análise descritiva e teste *t*-Student ($p < 0,05$). A maioria dos idosos foi diagnosticada há menos de 10 anos, por meio de exame médico de rotina, aferiam a pressão arterial, usavam medicamento e consumiam pouco sal. Os idosos com HAS apresentaram menor escore de QV em relação aos sem HAS. São necessárias medidas que minimize os impactos que a HAS causa na QV.

Descritores: Hipertensão, Qualidade de Vida, Idoso, Enfermagem, Enfermagem Geriátrica.

¹ Nurse. Master degree in Health Care. Doctoral student at the Postgraduate *stricto sensu* Program in Collective Health Care.

² Nurse. Master degree in Health Care. Doctoral student at the Postgraduate *stricto sensu* Program in Health Care.

³ Nurse. Master degree in Health Care. Doctoral student at the Postgraduate *stricto sensu* Program in Health Care.

⁴ Nurse. PhD in Nursing. Associate Professor at the Nursing Department in Education and Community Health of the Nursing Graduation Course. Health Science Institute. Federal University of Triângulo Mineiro.

RESUMEN

Tiene como objetivo describir las variables relacionadas con la hipertensión arterial sistémica (HAS) y comparar con las puntuaciones de calidad de vida (QOL), entre los adultos mayores con y sin hipertensión en el área rural de Uberaba, MG. Estaban compuestas por dos grupos: los pacientes ancianos con hipertensión arterial (353) y sin hipertensión (353). Hemos utilizado los siguientes instrumentos: estructura, Organización Mundial de la Salud Calidad de Vida – BREF (WHOQOL-BREF), Organización Mundial de la Salud Evaluación de la calidad de vida de las Personas de Edad (WHOQOL-OLD). Realizó análisis descriptivo y la prueba t de Student ($p < 0.05$). La mayoría de las personas de edad avanzada fue diagnosticado de menos de 10 años, mediante examen médico de rutina, se utilizaron las circunferencias cadera presión sanguínea, medicamento que se usa y bebió un poco de sal. Las personas de edad avanzada con hipertensión había puntuaciones más bajas de la CV en relación con aquellas personas sin hipertensión. Las medidas que sean necesarias para minimizar los impactos que la HAS en la CV.

Descriptor: Hipertensión, Calidad de vida, Anciano, Enfermería, Enfermería Geriátrica.

INTRODUCTION

Demographic transition process has brought the need of rethinking the dimension of the necessary services for the future decades, and also the increased number of elderly results in the increase of burden of diseases, highlighting the non-transmissible chronic diseases (NTCD).¹

Such diseases can present particularities related to the rural area, given the possible difficulties in the diagnosis, adherence to treatment and evolution of the comorbidities and complications. Among them, it is highlighted arterial hypertension (SAH), which in Brazil affects, approximately, 65.7% of the elderly according to the Surveillance for Risk Factors and Protection for Chronic Diseases, by phone interview.²

SAH is characterized as a multifactorial condition, which presents high levels of blood pressure (BP), considering systolic BP higher or equal to 140 mmHg and/or diastolic BP higher or equal to 90 mmHg.³ This condition can cause complications in the heart, brain, kidneys and blood vessels³, and, according to a research carried out with adults with hypertension, these had worse quality of life (QOL), in aspects related to it.⁴

QOL concept adopted for this study will be a group of scholars, supported by the World Health Organization (WHO), which defines it as the “perception of the individual of his/her position in life in the context of the culture and system of values in which he/she lives and related to his/her objectives, expectancies, patterns and worries”.^{5:1405}

Considering the high prevalence of SAH among the elderly, its impact in QOL and the scarcity of Brazilian researches carried out in Brazilian rural area evaluating this aspect, this study was proposed using specific tools for this age group. Then, the aim here is to contribute to enlarge the knowledge about this topic, in order to subsidize the formulation of actions and public politics for the elderly with SAH living in rural areas.

Objectives outlined were: describe the sociodemographic characteristics and number of self-reported morbidities of the elderly with and without SAH; describe variables related to SAH; compare scores of QOL among elderly with and without SAH living in rural area.

METHODS

This research is characterized as household, cross-sectional observational survey, developed in the rural area of the municipality of Uberaba-Minas Gerais (MG), Brazil.

People aged 60 or older participated in this study, living in the rural area of the municipality mentioned above, and without cognitive decline. SAH was identified by the reference of the elderly. Two groups were formed, matched by gender and age

group: 353 elderly patients with hypertension and 353 without SAH.

Instruments used were: Mini Mental State Examination (MMSE)⁶, to assess cognitive decline, exclusion criteria of this research; structured instrument, based on the questionnaire Older Americans Resources and Services (OARS)⁷, for the characterization of the population; instrument built by researchers containing the variables related to SAH; World Health Organization Quality of Life - BREF (WHOQOL-BREF)⁸ and World Health Organization Quality of Life Assessment for Older Persons (WHOQOL-OLD)⁹ to measure QOL.

Sociodemographic variables were studied (gender, age group, marital status, education, personal income, household arrangement, number of morbidities); related to SAH (diagnosis time, how SAH was discovered, medication use, treatment interruption, habit of checking blood pressure and salt amount in meals), domains of QOL (physical, psychological, social relationships and environment) and facets of QOL (functioning of senses, autonomy, past, present and future activities, social participation, death and dying and intimacy).

Data were collected at home by 14 interviewers trained in the period from June 2010 to March 2011. It was created a

spreadsheet in Excel® program, with the data processed in a personal computer, in double entry. Later, it was verified consistency between the two databases, undertaking the pertinent corrections using the original interview.

For the analysis, data were transferred to the software Statistical Package for Social Sciences (SPSS) version 17.0. The WHOQOL-BREF domains and WHOQOL-OLD facets were analyzed separately with their respective syntaxes. A descriptive analysis was carried out through distribution of absolute and percentage frequencies; mean and standard deviation. In order to compare the QOL scores among the elderly the Student t-test ($p < 0.05$) was used.

The project was approved by the Ethics Committee on Human Research of the Federal University of Triângulo Mineiro, under the nº1477. Only after the consent of the respondent and the signature of the Instrument of Consent, the interview was conducted.

RESULTS

Most elderly were male (57.2%) and aged 60-70 years (64%). In both groups, prevalence showed those living with a spouse or partner (65.7% with SAH, 71.1%

without SAH), with 4-8 years of education (35.1% with SAH, 38.8% without SAH), income of a minimum wage (46.2% with SAH, 46% without SAH), lived only with their spouse (45.6% with SAH, 49.9% without SAH). Elderly people with SAH (39.7%) reported a higher number of diseases (4 to 7) compared to those without SAH (47.6%) who presented 1 to 4.

Among the elderly with SAH prevalence was for those who had the disease for less than 10 years (70.3%), were diagnosed during routine medical examination (44.3%), had the habit of checking BP (73.5%), made regular use of medication (95.7%), did not discontinue treatment any time (77.5%) and used small amount of salt in meals (90.3%).

Both the majority of elderly patients with SAH (57.2%) and without SAH (61.8%) evaluated QOL as good. The same was assessed in relation to satisfaction with health, expressed by the elderly with SAH (60.6%) and without SAH (60.3%).

The higher QOL scores were found in social relationships domain and intimacy facet; while the lowest ones were in the environment and social participation for both groups (Table 1).

Elderly people with SAH had lower QOL scores, related to the domains: physical ($p = 0.001$), psychological ($p = 0.020$) and environment ($p = 0.015$); and in the facets: functioning of the senses ($p = 0.002$), autonomy ($p = 0.023$), social participation ($p = 0.001$) and intimacy ($p = 0.004$) when compared to those without SAH (Table 1).

Table 1. Distribution of QOL scores of elderly people with and without SAH. Uberaba 2011.

Variables	With		Without		<i>t</i>	<i>p</i>
	Mean	Standard deviation	Mean	Standard deviation		
WHOQOL-BREF						
Physical	65.86	15.78	73.33	13.51	6.75	0.001*
Psychological	69.1	12.81	71.38	13.18	2.32	0.020*
Social Relationships	73.49	12.92	74.13	12.79	0.659	0.51
Environment	62.17	11.69	64.28	11.31	2.434	0.015*
WHOQOL-OLD						
Functioning of the senses	68.79	23.53	74.17	22.03	3.18	0.002*
Autonomy	66.77	22.37	70.02	14.92	2.28	0.023*
Past, present and future activities	69.19	12.13	70.68	12.46	1.607	0.109
Social participation	66.59	13.11	69.67	11.26	3.35	0.001*
Death and dying	71.16	24.65	73.09	25.36	1.02	0.306

Intimacy	72.49	17.28	76.1	16.04	2.88	0.004*
----------	-------	-------	------	-------	------	--------

* $p < 0.05$

DISCUSSION

Sociodemographic characteristics of the elderly with SAH were similar to those without it. Compared to the scientific literature different results were observed in national studies with adults and elderly in rural areas, related to gender, in which the prevalence was female^{10,11} and similar according to the age group^{10,11} and marital status.^{10,11} As regards education¹⁰, income¹¹ and living arrangement¹¹ findings differ from research with adults and elderly with and without SAH in urban and rural areas. In this context reinforces the need for nurses to obtain this data and generate information to support nursing care, considering the size of Brazil and its regional differences. Thus, the planning of gerontological nursing care must meet the peculiarities of the elderly to be served. In this context it is reinforced the need for nurses to obtain this data and generate information to support nursing care, considering the vast territorial extension of Brazil and its regional differences. This way, the planning of gerontological

nursing care must meet the peculiarities of the elderly to be assisted.

Regarding the number of morbidities, higher percentage of elderly people without SAH (72.5%) had less than four comorbidities in research conducted in urban and rural of Teixeiras-MG.¹¹ Considering that elderly people with SAH had higher number of diseases, which may lead to greater impairment of health, the nurse, through critical thinking¹², should identify these comorbidities and propose preventive actions. It is noteworthy that the promotional activities in health also contribute to improving the overall health in addition to providing greater autonomy in decision-making and self-care.

SAH diagnostic time was lower than that obtained in research conducted with adults and elderly in the urban area of the western region of São Paulo-SP, who had the disease for more than five years.¹³ Elderly of this study found out about SAH in a routine consultation; this fact may be related to asymptomatic characteristic of the disease. It is noteworthy that this may influence the treatment of SAH due to superstitious behaviors as observed in a survey with rural elderly in Minas Gerais.¹⁴ These findings express the differences in the organization of several Brazilian health services and also show the need for nurses to periodically trace SAH among the

elderly, in view of the high prevalence in this population and the need for early intervention.

Concerning the habit of monthly checking BP, it is emphasized that although the majority of elderly people be used to it, the distance between the farms and the health unit can be a limiting factor. In addition, SAH is a disease, many times, asymptomatic, what can help to lower adherence to the therapeutic³ and BP control. Thus, health professionals can take advantage of the moment when the elderly is at the care unit to develop educational activities, thus contributing to improve adherence.

Most elderly was using drugs and did not discontinue it. However, it is worth noting that non-adherence, usually occurs by the lack of knowledge about the disease.³ Thus, health education, focusing on the consequences of uncontrolled SAH and the benefits in the short, medium and long-term suitable treatment are suggestions to promote adhesion³ and contribute to prevent elderly from stopping treatment.

Reducing excessive quantity of salt in the diet is one of the strategies used to control the BP³, which should be strengthened by nurses during health education activities.

Referring to QOL, the highest score in the domain social relations in both groups in this study can be justified because in this stage of life elderly people have much more clear family and personal ties¹⁵, which possibly influences the highest score of the domain mentioned.

The lower QOL score in the domain environment may be related to greater limitations found in rural areas, such as the lack of security, public transport difficulties, shortage of recreation, aspects evaluated in this domain.⁸

In a research with elderly people in Parana it was seen that the disease interferes with QOL damaging work activities; signs and symptoms of the disease very often can prevent the performance of routine activities in a satisfactory way¹⁶, factors that may be related to lower scores among those with SAH in the physical domain. It is necessary that the health staff encourage the holding of periodic evaluations so as to monitor health conditions and advise on comorbidities, thus, contributing to better adaptation to their health condition and minimization of the impact on QOL.

Concerning the psychological aspects, it appears that the changes resulting from diseases may impact on QOL. However, it must be considered that stress is perceived by the elderly as

triggering agent of rising blood pressure levels.¹⁶ Another rural survey in Minas Gerais noted that older people believe that by maintaining emotional control, they do not require medication. The fact of associating SAH to psychological symptoms such as nervousness, anger, sleeplessness and sadness can hinder its control because the elderly stop taking the medication by considering the disease has short period of action, being caused due to some stressful events.¹⁴ This way, the elderly should be investigated for their beliefs about the disease. Also, changes in habits and lifestyle should be evaluated by health professionals since they are related to the non-drug treatment measures¹³, and can improve QOL scores.

As for the domain environment, study of elderly in a fishing community with chronic diseases showed that these elderly relate QOL to comfort and accessibility to the health service.¹⁷ Thus, considering the possible difficulties of access in rural areas, elderly people with SAH may have greater impact on physical security and protection, health and social care: availability and quality among other items, evaluated in this domain⁸ due to the higher number of comorbidities and chronicity of the disease. Another factor is the distance and the functioning of health

services, which may be of concern to the elderly with chronic diseases.¹⁷

The social participation facet assesses participation in daily activities, especially in the community⁹; and the countryside offers few opportunities for social activities in relation to the urban area¹⁸, what can affect QOL in this respect.

The fact that the elderly with SAH present lower QOL score in the facet functioning of the senses may be related, among other factors, to drug therapy that may cause taste changes.³ In addition, comorbidities may cause greater impact on other senses such as vision and hearing. It is for the health professional, especially nurses, monitoring of these elderly people through research on sensory functioning, clarifying questions and observing of drug use and side effects.

As the facet autonomy, it is highlighted that chronic disease and other associated morbidities require greater attention to the health of the elderly, which can lead to family intervention in decision-making of elderly people and interfere with their autonomy.¹⁹ Therefore, it is assumed that the chronicity of SAH and the presence of comorbidities can influence the lower QOL score in the facet autonomy.

The lower QOL score in the facet social participation among the elderly with SAH may be related to lack of activities in

rural areas and also for the chronicity of the disease. A study carried out among elderly with chronic diseases of a fishing community observed that the non-participation in the activities were related to a decrease in visual acuity and difficulty in moving.¹⁷

Among the factors that may be influencing the lower QOL score in the facet intimacy may be the use of drugs for SAH, which can cause sexual dysfunction.³ Moreover, this facet assesses social and close⁹ relationships, being that in a study with elderly in a fishing community it was identified that the disruption of social and family support contributes to the worsening of chronic conditions.¹⁷ In nursing consultation with the elderly with SAH one should asked about their personal relationships to help and encourage them to improve these aspects.

CONCLUSIONS

In this study, it was found that elderly people with SAH had lower QOL scores in most domains and facets assessed, when compared to those who did not have this disease. It is essential to establish health actions aimed at minimizing the physical impairment and the changes of the senses, in addition to encourage autonomy and social

participation through community actions involving family members, health staff and the elderly.

Given this, it is considered essential the work of nurses in primary care beyond the control and treatment of SAH. The detailed survey of the health condition of each elderly and the impact on their QOL, through the nursing process, will subsidize clinical judgment to establish an individualized, contextualized and qualified nursing care.

It is pointed out as limitations of this study the cross-sectional aspect, which cannot establish a causal relationship.

REFERENCES

1. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Análise de Situação de Saúde. Plano de ações estratégicas para o enfrentamento das doenças crônicas não transmissíveis (DCNT) no Brasil 2011-2022, 2011 [Access in 05 de abril de 2016]. Available in: <http://bvsms.saude.gov.br/bvs/publicacoes/planoacoesenfrentdcnt2011.pdf>.
2. Secretaria de Vigilância em Saúde. Vigitel Brasil 2011: vigilância de fatores de risco e proteção para doenças crônicas por inquérito telefônico. Brasília: Ministério da Saúde; 2012. [Access in 06 de abril de 2016]. Available in http://bvsms.saude.gov.br/bvs/publicacoes/vigitel_brasil_2011.pdf
3. Sociedade Brasileira de Cardiologia; Sociedade Brasileira de Hipertensão; Sociedade Brasileira de Nefrologia. VI Diretrizes Brasileiras de Hipertensão. Arq Bras Cardiol. 2010; 95(1 supl.1): 1-51. [Access in 10 de maio de 2011]; Available in: http://publicacoes.cardiol.br/consenso/2010/Diretriz_hipertensao_associados.pdf/
4. Amaral TLM, Amaral CA, Prado PR, Lima NS, Herculano PV, Monteiro GT. Qualidade de vida e morbidades associadas em idosos cadastrados na Estratégia de Saúde da Família do município Senador Guiomard, Acre. Rev. Bras. Geriatr. Gerontol., Rio de Janeiro, 2015; 18(4):797-808
5. The WHOQOL Group. The World Health Organization quality of life assessment: position paper from the World Health Organization. Soc Sci Med. 1995; 41(10):1403-9.
6. Bertolucci PH, Bruck SM, Campacci SR, Juliano YO. O mini-exame do estado mental em uma população geral: impacto da escolaridade. Arq Neuropsiquiatr. 1994; 52(1):1-7.
7. Ramos L, Toniolo N, Cendoroglo M et al. Two-year follow-up study of elderly residents in S. Paulo, Brazil: methodology and preliminary results. Rev Saude Publica. 1998; 32(5):397-407.
8. Fleck MPA, Louzada S, Xavier M, Vieira G, Santos L, Pinzon V. Aplicação da versão em português do instrumento abreviado de avaliação da qualidade de vida "WHOQOL-BREF". Rev Saude Publica. 2000; 34(2):178-83.
9. Fleck MPA, Chachamovich E, Trentini C. Development and validation of the Portuguese version of the WHOQOL-OLD module. Rev Saude Publica. 2006; 40(5):785-91.
10. Rigo II, Paskulin LMG, Morais EP. Capacidade funcional de idosos de uma comunidade rural do Rio Grande do Sul. Rev Gaúcha Enferm. 2010; 31(2):254-61. (11)
11. Pereira RJ, Cotta RMM, Franceschini SCC, Ribeiro RCLR, Tinoco AL, Rosado LEFPL, et al. Analysis of the social and health profile of the elderly: the relevance of the Family Health Program.

Rev Med Minas Gerais. 2010; 20(1):5-15.
(12)

12. Betancourt CL. La transculturación en el cuidado de enfermeira gerontológica comunitária. Revista Cubana de Enfermería. 2012; 28(3):195-208. (13)

13. Pierin AMG, Marroni SN, Taveira LAF, Benseñor IJM. Controle da hipertensão arterial e fatores associados na atenção primária em Unidades Básicas de Saúde localizadas na Região Oeste da cidade de São Paulo. 2011; 16(supl.1):1389-1400.

14. Soares MM, Silva LOL, Chequer MAA, Rodrigues SM, Dias C. Comportamentos supersticiosos e práticas comportamentais inadequadas no tratamento da hipertensão arterial sistêmica. Psic., Saúde & Doenças. 2014 Jun; 15(2): 524-537.

15. Martins CR, Albuquerque FJB, Gouveia CNN, Rodrigues CFF, Neves MTS. Avaliação da Qualidade de Vida Subjetiva dos Idosos: uma comparação entre os residentes em cidades rurais e urbanas. Estud Interdiscip Envelhec. 2007; 11:135-54.

16. Rissardo LK, Barreto MS, Oliveira AP, Marcon SS, Carreira G. Influência da hipertensão arterial e o tratamento na qualidade de vida de idosos. Rev enferm UFPE. 2012; 6(12):2918-26

17. Meirelles BHS, Arruda C, Simon E, Vieira FMA, Cortezi MDV, Natividade MSL. Condições associadas com à qualidade de vida dos idosos com doenças crônicas. Cogitare Enferm. 2010; 15(3):433-40.

18. Tavares DMS, Paiva MM, Dias FA, Diniz MA, Martins NPF. Características sociodemográficas e qualidade de vida de idosos com hipertensão arterial sistêmica que residem na zona rural: importância do enfermeiro. Rev Latino-Am. Enfermagem. 2013; 21(2):515-22.

19. Tavares DMS, Martins NPF, Diniz MA, Dias FA, Santos NMF. Quality of life of the elderly with hypertension. Rev Enferm UERJ. 2011; 19(3):438-44.

Received: 22/09/2015

Approved: 13/07/2016

Published: 31/07/2016