ORIGINAL ARTICLE

LIFE QUALITY AND HYPERTENSIVE ADULT'S MEDICATION ADHERENCE
QUALIDADE DE VIDA E ADESÃO MEDICAMENTOSA EM ADULTOS HIPERTENSOS
CALIDAD DE VIDA Y ADHERENCIA A MEDICACIÓN EN ADULTOS HIPERTENSOS

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ABSTRACT

Objective: to verify the life quality association to the medications adherence, used medication number and diagnostic time in hypertensive adults. ***Method***: transversal study with quantitative approach; conducted with 387 hypertensive patients obtained by stratified and systematic samples. Tada collection was performed by Brief Medication Questionnaire, to verify the medication therapy adhesion and by SF-36, to life quality. A análise dos dados foi realizada com o *software* SPSS. ***Results***: at the multi varied analysis there was a meaningfulness between life quality and the varieties: diagnostic time (p=0,007), medication quantity (p=0,034) and medication (p=0,021). ***Conclusion***: the therapeutic adhesion improves the perception of life quality. In this way, this research's finding contribute to actions development on hypertensive people assistance; aiming the adhesion rate increase. ***Descriptors***: Life Quality; Patient Cooperation; Hypertension; Adult's Health.

RESUMO

Objetivo: verificar a associação qualidade de vida com a adesão medicamentosa, número de medicamentos em uso e tempo de diagnóstico em adultos hipertensos. ***Método***: estudo transversal, de abordagem quantitativa, realizado com 387 pacientes hipertensos obtidos por amostragem estratificada e sistemática. A coleta de dados foi realizada pelo *Brief Medication Questionnaire*, para verificar a adesão à terapia medicamentosa e pelo SF-36, para a qualidade de vida. A análise dos dados foi realizada com o *software* SPSS. ***Resultados***: na análise multivariada houve significância entre a qualidade de vida e as variáveis: tempo de diagnóstico (p=0,007), quantidade de medicamentos (p=0,034) e adesão medicamentosa (p=0,021). ***Conclusão***: a adesão à terapêutica melhora a percepção da qualidade de vida. Desta forma, os achados desta pesquisa contribuem para o desenvolvimento de ações na assistência às pessoas hipertensas, objetivando o aumento das taxas de adesão. ***Descritores***: Qualidade de Vida; Cooperação do Paciente; Hipertensão; Saúde do Adulto.

RESUMEN

Objetivo: comprobar la calidad de vida asociada con la adherencia a la medicación, el número de medicamentos y el tiempo de diagnóstico en adultos hipertensos. ***Métod***: estudio transversal con un enfoque cuantitativo, realizado con 387 pacientes hipertensos obtenidos por muestreo estratificado y sistemático. La recolección de datos se realizó mediante el Cuestionario Breve medicación, para verificar la adherencia al tratamiento farmacológico y el SF-36, a la calidad de vida. El análisis de datos se realizó con el software SPSS. ***Resultados***: en el análisis multivariante, hubo una diferencia significativa entre la calidad de vida y las variables: diagnóstico (p=0,007), número de medicamentos (p=0,034) y la adherencia a la medicación (p=0,021).***Conclusión***: adherencia a la terapia mejora la percepción de la calidad de vida. Por lo tanto, los resultados de esta investigación contribuyen al desarrollo de acciones de asistencia a las personas hipertensas, con el objetivo de aumentar las cuotas de los miembros. ***Descriptores***: Calidad de Vida; Cooperación del Paciente; Hipertensión; Salud del Adulto.

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INTRODUCTION

Life quality (LQ) comprises bio psycho socials dimensions which are influenced by beliefs, experiences, each individual impression and are related to factors as home, leisure, eating habits and health, referring to a positive perception of well-being. It also reflects the people perception about health and how it affects their life. This concept is also used to observe pharmaceutical cares and treatment results.[1,2]

LQ can be affected by disease and treatment, so that the longer the duration of these, the greater the impact. Thus, people with chronic diseases dependent on continuous treatment may present even greater loss in their LQ.[3-5]

Noncommunicable chronic diseases are multifactorial and have high rates of prevalence and mortality. Amongst them, systemic arterial hypertension (SAH) is the most common, which is a problem because it presents risk of compromise of vital functions, development of complications, socioeconomic impact and LQ.[6-8]

For the control of blood pressure, pharmacological and non-pharmacological treatment is necessary, and this refers mainly to lifestyle, and pharmacological through antihypertensive medications.[6] The goal of drug treatment is to reduce blood pressure levels, morbidity and mortality caused by complications, especially cardiovascular.[3,9,10]

The success of the prescribed therapy depends directly on patient adherence which may be influenced by the use in drug number and the time of diagnosis.[8,11] Non-adherence implies the lack of pressure levels, high rates of co morbidity, increased hospitalization rates, increased costs for treatment, greater physical limitations and dependency, factors that can harm the patient LQ.[2,12]

OBJECTIVE

● To verify the association between the life quality and medication adhesion, used medication number and diagnostic time on hypertensive adults.

METHOD

It is about a quantitative, descriptive and transversal research that is part from a greater research Project named "Instruments" construction and validation to the systemic arterial hypertension care on hypertensive adults".

Were interviewed 387 patients obtained by stratified and systematic sampling that met the inclusion criteria: hypertensive patients aged 18 to 60 years, registered or active in the Clinical Management System Hypertension and Diabetes 18 Basic Health Units of Health District in the city of Curitiba, Paraná and obtained minimum score on the Mini Mental State Examination (13 points for illiterates, 18 for low and middle school and 26 for high school, and low and medium education are those with up to eight years of age study and above that is considered to be high school).[13] We excluded three patients who did not obtain the minimum score in this exam.

For data collection was used a questionnaire with sociodemographic variables and instruments *Brief Medication Questionnaire* (BMQ)[14] and the *Medical Outcomes Study 36-Item Short Form Health Survey* (SF-36) translated to Brazil[15], For data collection was used a questionnaire with socio demographic variables and instruments.

BMQ is a questionnaire that can identify factors that prevent or hinder adherence to treatment. These are about issues which are subject to prescription drugs and their use, reported difficulties in taking medication and, finally, a scale with nine items divided into three areas: system, beliefs and memories. The higher the score, the greater the difficulty or barrier to treatment adherence.[8,14]

In this research were considered adherent individuals with scores between 0 and 1 in the sum of the three domains: regime, belief and memory. Participants with scores equal to or above 2 were classified as noncompliant; they indicate barriers to treatment adherence.

The SF-36, in turn, is on a scale of 0 to 100, where 0 corresponds to a low perception LQ and 100 corresponds to a high perception LQ. This scale is divided into eight domains: functional capacity, physical aspects, pain, general health, vitality, social aspects, emotional aspects and mental health. These eight domains can be classified into two major groups: physical component Grouped (PCG) and Mental Component Mental (MC), representing well-being related to physical functioning and emotional well-being, respectively.[4,15] In this research, the individual average scores above 50 were considered good LQ and below 50 as low LQ.

Data were tabulated in Microsoft Excel® spreadsheets and analyzed using descriptive statistics. The association between LQ, adherence to treatment, the number of medications and diagnosis time was calculated by binary logistic regression model using the software *Statistical Package for Social*

Sciences (SPSS). Was adopted a significance level 5%.

This research respect the ethical precepts of the resolution n. 466/2012 from the National Council of Health Ministry of Health and approved by the Ethics in Research of the Health Sciences Sector from the Parana Federal University (opinion CEP/SD: 220.068 and CAAE: 07444512.0.0000.0102).

RESULTS

387 participants, of which 295 (76,2%) were women were studied. The age of respondents varied between 23 and 60 years with a mean of 52,87 ± 6,71. Regarding the LQ, the average scores of the domains can be seen in Table 1.

Table 1. Average values and standard deviation from each domain's score.

Domain	Average (Standard Deviation)
Pain (P)	58,76 (±28,05)
Vitality (V)	63,76 (±22,32)
General health condition (GHC)	64,82 (±23,16)
Limitation by physical aspects (PA)	65,83 (±41,35)
Mental Health (MH)	70,25 (±23,46)
Limitation by emotional aspects (EA)	73,04 (±40,00)
Functional capacity (FC)	73,19 (±25,30)
Social aspects (SA)	77,94 (±25,81)

Regarding medication adherence, it was observed that 45,74% of respondents reported no difficulties in the scheme area and 80,62% in beliefs. As for memory, 63,31% of the subjects reported little difficulty in this area (Table 2). According to the scores, 241 respondents (62,27%) were considered nonadherent.

Table 2. Participant's distribution according to the variable from medication adherence.

Scores	Diet	Beliefs	Memory
0	177	312	88
1	106	31	245
2	66	44	54
3	32	0	0
4	5	0	0
5	1	0	0
Total	387	387	387

It was found that patients diagnosed with time up to 10 years who drink less than three drugs a day and are adherent to drug therapy has better LQ and multivariate analysis there was significant difference between this and the variables: diagnosis time, amount of medication ingested daily and drug adhesion (Table 3).

Table 3. Multivariate analysis of the association of independent variables with scores of quality of life among hypertensives

Variables	Bad LQ n (%)	Good LQ n (%)	OR adjusted (IC95%)	p-value
Diagnostic time				
Till 10 years	29 (13,60%)	185 (86,40%)	1,00	
Longer than 10 years	46 (26,60%)	127 (73,40%)	0,48 (0,28 to 0,82)	0,007*
Medications per Day				
Till 3	31 (14,60%)	181 (85,40%)	1,00	
More than 3	44 (25,10%)	131 (74,90%)	0,56 (0,33 to 0,96)	0,034*
Medication Therapy Adhesion				
No	38 (25,50%)	111 (74,50%)	1,00	
Yes	37 (15,50%)	201 (84,50%)	1.85 (1,10 to 3,12)	0,021*

*p<0,05

DISCUSSION

At the score analysis obtained at the SF-36, the participants presented a better perception of LQ at the domains SA, FC and EA, being the worst score obtained was for the domain P. There is no consensus in the literature in this regard, because the areas best and worst scores vary between studies. It is suggested that this difference may be by several factors for each population studied, such as socio demographic characteristics, presence of co morbidities or complications, number of antihypertensive medications used and side effects of the same.[3,4]

As for adherence assessed by the instrument BMQ, there has been little or no difficulty in the areas regime and beliefs. These data corroborate the study of 206 patients in Porto Alegre, where 48.1% patients

had some scores on the regime barrier and 7,2% in the belief barrier, but differ in memory barrier, where 92,7 % of participants scored difficulties.[16] This has relevance for prevention and health education actions for nursing professionals.

Another study of 116 patients admitted in the emergency department of a university hospital in São Paulo, to identify the epidemiological profile, knowledge about the disease and the rate of adherence to treatment of patients with hypertension, admitted to the service emergency found that 67% of patients had barriers in the BMQ domain memory (p<0,0001).[17]

It was found that patients who do not adhere to treatment, with delayed diagnosis and number of medications have worse LQ, similar to an observational study in Goiás that sought to evaluate the LQ of hypertensive patients compared to the general population and found that diagnosis time interfered in the field LQ PA (p=0,00) and PCS (p=0,04), in which patients with less diagnostic time showed better LQ. On the other hand, the amount of drugs used and the number of intakes per day did not influence the LQ, different this search.[4]

We found the association between LQ and medication adherence, confirming an integrative review that included 14 articles that addressed chronic diseases and mensuravam LQ and membership through different methodologies. From these, nine had significant relationship with the accession to LQ, although it has not been possible to determine the causality of this association.[2] Another study aims to evaluate the impact of high blood pressure and the awareness of having hypertension in perception LQ found a negative association between adherence and LQ, where the authors related to low LQ observed in their sample, with the side effects of medications used.[3]

A study of 385 patients evaluated the same relationship through the instruments EuroQol EQ-5D for LQ and Drug Attitude Inventory for medication adherence, and the correlations obtained were considered insignificant and negative.[1]

The limitation found in this research was in relation to the kind of used study, as soon as transversal studies does not allow to attribute the cause of the found associations.

CONCLUSION

Was identified the association with the diagnostic time, medication number and

adhesion to LQ. Regarding medication adherence note that the memory of the area in relation to the drugs used is this feature in 92,7% of participants.

The orientation and awareness about the medicament therapy adhesion shall always be watched the elaboration of the caring plans to the hypertensive people, because this research's results showed that, with the adhesion, there is a perspective that the patients have a better knowledge about their LQ.

FINANCING

REFERENCES

1. Saleem F, Hassali MA, Shafie AA, Awad GA, Atif M, Haq N et al. Does treatment adherence correlates with health related quality of life? Findings from a cross sectional study. BMC Public Health [Internet]. 2012 [cited 2016 Jan 29];12:318. Available from: http://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-12-318

2. Liberato SMD, Souza AJG, Gomes ATL, Medeiros LP, Costa IKF, Torres, GV. Relação entre adesão ao tratamento e qualidade de vida: revisão integrativa de literatura. Rev eletrônica enferm [Internet]. 2014 [cited 2016 Jan 29];16(1):191-8. Available from: https://www.fen.ufg.br/revista/v16/n1/pdf/v16n1a22.pdf

3. Korhonen PE, Kivelä SL, Kautiainen H, Järvenpää S, Kantola I. Health-related quality of life and awareness of hypertension. J Hypertens [Internet]. 2011 [cited 2016 Jan 29];29(11):2070-74. Available from: www.ncbi.nlm.nih.gov/pubmed/21946696

4. Carvalho MV, Siqueira LB, Sousa ALL, Jardim PCBV. A influência da hipertensão arterial na qualidade de vida. Arq. Bras. Cardiol. [Internet]. 2013 [cited 2016 Jan 29];100(2):164-74. Available from: http://www.scielo.br/pdf/abc/v100n2/v100n2a09.pdf

5. Fava SMCL, Teraoka EC, Oliveira AS, Calixto AATF, Eid LP, Veiga EV. Fatores relacionados à adesão ao tratamento da hipertensão arterial sistêmica. Rev Rene [Internet]. 2014 [cited 2016 Jan 29];15(2):354-61. Available from: http://www.revistarene.ufc.br/revista/index.php/revista/article/download/1495/pdf

6. Oliveira TL, Miranda LP, Fernandes PS, Caldeira AP. Eficácia da educação em saúde

no tratamento não medicamentoso da hipertensão arterial. Acta paul enferm [Internet]. 2013 [cited 2016 Jan 29];26(2):179-84. Available from: http://www.scielo.br/pdf/ape/v26n2/v26n2a12.pdf

7. Raymundo ACN, Pierin AMG. Adesão ao tratamento de hipertensos em um programa de gestão de doenças crônicas: estudo longitudinal retrospectivo. Rev esc enferm USP [Internet]. 2014 [cited 2016 Jan 29];48(5):811-9. Available from: http://www.scielo.br/pdf/reeusp/v48n5/pt_0080-6234-reeusp-48-05-811.pdf

8. Mantovani MF, Mattei AT, Arthur JP, Ulbrich EM, Moreira RC. Utilização do Brief Medication Questionnaire na adesão medicamentosa de hipertensos. J Nurs UFPE on line [Internet]. 2015 [cited 2016 Jan 29];9(1):84-90. Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/download/6402/12488

9. Figueiredo NN, Asakura L. Adesão ao tratamento anti-hipertensivo: dificuldades relatadas por indivíduos hipertensos. Acta Paul Enferm [Internet]. 2010 [cited 2016 Jan 29];23(6):782-7. Available from: http://www.scielo.br/pdf/ape/v23n6/11.pdf

10. Ulbrich EM, Maftum MA, Labronici LM, Mantovani MF. Atividades educativas para portadores de doença crônica: subsídios para a enfermagem. Rev Gaúcha Enferm [Internet]. 2012 [cited 2016 Jan 29];33(2):22-27. Available from: http://www.scielo.br/pdf/rgenf/v33n2/05.pdf

11. Faria HTG, Rodrigues FFL, Zanetti ML, Araújo MFM, Damasceno MMC. Fatores associados à adesão ao tratamento de pacientes com diabetes mellitus. Acta Paul Enferm. [Internet]. 2013 [cited 2016 Jan 29];26(3):231-7. Available from: http://www.scielo.br/pdf/ape/v26n3/05.pdf

12. Bezerra ASM, Lopes JL, Barros ALBL. Adesão de pacientes hipertensos ao tratamento medicamentoso. Rev Bras Enferm [Internet]. 2014 [cited 2016 Jan 29];67(4):550-5. Available from: http://www.scielo.br/pdf/reben/v67n4/0034-7167-reben-67-04-0550.pdf

13. Burns A, Brayne C, Folstein M. Key Papers in Geriatric Psychiatry: mini-mental state: a practical method for grading the cognitive state of patients for the clinician. M. Folstein, S. Folstein and P. McHugh, Journal of Psychiatric Research, 1975, 12, 189-198. Int. J Geriat Psychiatry [Internet]. 1998 [cited 2016 Jan 29];13:285-294. Available from: http://onlinelibrary.wiley.com/doi/10.1002/%28SICI%291099-1166%28199805%2913:5%3C285::AID-GPS753%3E3.0.CO;2-V/pdf

14. Svarstad BL, Chewning BA, Sleath BL, Claesson C. The Brief Medication Questionnaire: a tool for screening patient adherence and barriers to adherence. Patient Educ Couns [Internet]. 1999 [cited 2016 Jan 29],37(2):113-24. Available from: http://www.sciencedirect.com/science/article/pii/S0738399198001074

15. Ciconelli RM, Ferraz MB, Santos W, Meinão I, Quaresma MR. Tradução para a língua portuguesa e validação do questionário genérico de avaliação da qualidade de vida SF-36 (Brasil SF-36). Rev Bras Reumatol [Internet]. 1999 [cited 2016 Jan 29];39(3):143-50. Available from: http://www.ufjf.br/renato_nunes/files/2014/03/Valida%C3%A7%C3%A3o-do-Question%C3%A1rio-de-qualidade-de-Vida-SF-36.pdf.

16. Ben AJ, Neumann CR, Mengue SS. Teste de Morisky-Green e Brief Medication Questionnaire para avaliar a adesão a medicamentos. Rev Saúde Pública [Internet]. 2012 [cited 2016 Jan 29];46(2):279-89. Available from: http://www.scielosp.org/pdf/rsp/2012nahead/3357.pdf

17. Vancini-Campanharo CR, Oliveira GN, Andrade TFL, Okuno MFP, Lopes MCBT, Batista REA. Hipertensão Arterial Sistêmica no Serviço de Emergência: adesão medicamentosa e conhecimento da doença. Rev Latino-Am Enfermagem [Internet]. 2015 [cited 2016 Jan 29];23(6):1149-56. Available from: http://www.scielo.br/pdf/rlae/v23n6/pt_0104-1169-rlae-23-06-01149.pdf

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