



ORIGINAL ARTICLE

**CLINICAL AND EPIDEMIOLOGICAL PROFILE AND ADHESION TO THE
TREATMENT OF ELDERLY HYPERTENSION**

**PERFIL CLÍNICO-EPIDEMIOLÓGICO E ADESÃO AO TRATAMENTO DE IDOSOS COM
HIPERTENSÃO**

**PERFIL CLÍNICO-EPIDEMIOLÓGICO Y ADHESIÓN AL TRATAMIENTO DE ANCIANOS CON
HIPERTENSIÓN**

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ABSTRACT

Objective: to describe the clinical-epidemiological profile and adherence to the treatment of hypertensive elderly. **Method:** quantitative, descriptive study, carried out in two basic health units with 145 elderly hypertensives who answered the questionnaire of adherence to the treatment of hypertension (QATSAH) through a home visit. Descriptive statistics were used to analyze the data, from tables and figures. **Results:** the findings were similar to other studies with elderly hypertensive patients, with a predominance of females (68.3%); however, some peculiar data were observed, not to have a caregiver (58.6%) and a high frequency of level 90 on the adherence scale, demonstrating that forgetfulness of the medication still represents a major obstacle for the elderly. **Conclusion:** the study provided indicators for the planning of Nursingcare, evidencing clinical parameters that denounce unsatisfactory levels of adherence to treatment. **Descriptors:** Health of the Elderly; Hypertension; Health Profile; Community Health Nursing; Primary Health Care; Health Education.

RESUMO

Objetivo: descrever o perfil clínico-epidemiológico e a adesão ao tratamento de idosos hipertensos. **Método:** estudo quantitativo, descritivo, realizado em duas unidades básicas de saúde com 145 idosos hipertensos que responderam ao questionário de adesão ao tratamento da hipertensão (QATHAS) mediante visita domiciliária. Utilizou-se estatística descritiva para a análise dos dados, a partir de tabelas e figura. **Resultados:** os achados assemelham-se a outros estudos com idosos hipertensos, destacando-se o predomínio do sexo feminino (68,3%), contudo, alguns dados peculiares foram observados, como não possuir um cuidador (58,6%) e elevada frequência do nível 90 na escala de adesão, demonstrando que o esquecimento da medicação ainda representa grande obstáculo para os idosos. **Conclusão:** a realização do estudo forneceu indicadores para o planejamento do cuidado de Enfermagem, evidenciando parâmetros clínicos que denunciam níveis insatisfatórios de adesão ao tratamento. **Descritores:** Saúde do Idoso; Hipertensão; Perfil de Saúde; Enfermagem em Saúde Comunitária; Atenção Primária em Saúde; Educação em Saúde.

RESUMEN

Objetivo: describir el perfil clínico-epidemiológico y la adhesión al tratamiento de ancianos hipertensos. **Método:** estudio cuantitativo, descriptivo, realizado en dos unidades básicas de salud con 145 ancianos hipertensos que respondieron al cuestionario de adhesión al tratamiento de la hipertensión (QATHAS) mediante visita domiciliaria. Se utilizó estadística descriptiva para el análisis de los datos, a partir de tablas y figura. **Resultados:** los hallazgos se asemejan a otros estudios con ancianos hipertensos, destacándose el predominio del sexo femenino (68,3%), sin embargo, algunos datos peculiares fueron observados, como no poseer un cuidador (58,6%) y elevada frecuencia del nivel 90 en la escala de adhesión, demostrando que el olvido de la medicación todavía representa un gran obstáculo para los ancianos. **Conclusión:** la realización del estudio proporcionó indicadores para la planificación del cuidado de Enfermería, evidenciando parámetros clínicos que denuncian niveles insatisfactorios de adhesión al tratamiento. **Descritores:** Salud del Anciano; Hipertensión; Perfil de Salud; Enfermería en Salud Comunitaria; Atención Primaria de Salud; Educación em Salud.

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INTRODUCTION

Systemic Arterial Hypertension (SAH) is a clinical condition of high prevalence, low control rates and is associated with an increased risk of fatal and non-fatal cardiovascular events.¹⁻² In the elderly, it is the most significant modifiable cardiovascular risk factor and the alterations of aging themselves determine differential aspects of blood pressure (BP).²

The prevalence of SAH in the elderly is over 60% and the individual's persistence in the treatment is fundamental to reduce cardiovascular morbimortality. However, in some studies, low rates of adherence of the elderly to antihypertensive treatment are observed.³

Low rates of adherence to treatment, associated with increasing age and unfavorable social factors such as low schooling and income, compromise the management of the disease and contribute to the occurrence of SAH complications. This disease is in the genesis of many chronic health conditions, which characterizes it as one of the major causes of the reduction of people's expectation and quality of life.³

It should be emphasized, however, that the ability of a hypertensive elderly person to adhere to treatment is influenced by different factors, such as the health system, socioeconomic level, professional health and patient relationship, and the elderly's understanding of disease and its treatment. Therefore, the patient can not be held responsible only for the medication or non-medicated follow-up for the control of the SAH.⁴

When considering that the treatment of SAH requires the modification of lifestyle habits and involves aspects related to culture, the health environment and individual capacities, it is necessary to know the profile of hypertensive individuals in order to gather information that will favor the elaboration of an adequate care plan and directed to the real demands of the population.

OBJECTIVE

- To describe the clinical-epidemiological profile and adherence to the treatment of hypertensive elderly.

METHOD

Quantitative, descriptive study, performed in two Family Health Units (USF) located in the urban area of the city of Picos-PI, Brazil, chosen by lot. The study population consisted

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of 300 elderly people with hypertension enrolled in SIS-HIPERDIA (Diabetes and Hypertension Monitoring System) and accompanied by the health teams of the two units drawn, with a view to the best care of this clientele, from the establishment of goals to achieve better adherence rates to treatment and prevention of complications of hypertension.

For the sample calculation, we adopted a formula for studies with groups, a 95% confidence interval and a 10% increase for losses and refusals, resulting in a sample of 145 users.

The inclusion criteria adopted were: elderly people duly enrolled and followed up at the selected units, with a medical diagnosis of SAH and with conditions to respond to the collection instrument used, measured from the mini-mental state examination. The characteristics of the elderly were obtained from the medical charts, as well as information collected from the health team. Elderly persons not located at the addresses indicated in the register were excluded.

With the support of community health agents, the elderly were identified and, after consent for the study, by signing the Informed Consent Term, the data collection was performed, through home visits, in the months of January to August 2014.

For the classification of the adhesion, was used the Questionnaire of Adherence to the Treatment of SAH (QATSAH). This instrument was developed and validated with hypertensive patients in Fortaleza, State of Ceará, and was adequate to evaluate adherence to the treatment of hypertension. It places the respondent on an adherence scale, ranging from 60 to 110, whereby the health professional will know, precisely, in which aspects of treatment the hypertensive person should be more careful to climb the scale.⁵

When you respond to QATSAH, you do not get a summation of points or scores. The response is a value of the parameter (θ), estimated for the performance of that respondent, which is obtained through the use of a software from the electronic address: www.qathas.com.br, in which it is possible to enter the responses of the users.⁵ The data produced using the QATSAH were analyzed by statistical software Statistical Package for the Social Sciences SPSS, version 20.0.

For the analysis of the findings, absolute and percentage distributions were reached, which were presented through tables and graphs.

This study had the research project approved by the Research Ethics Committee of the Federal University of Ceará / UFC with opinion n .: 401,244.

The majority of participants were female (68.3%); non-literate (71.1%); non-white (74.5%); married (55.2%); children (90.3%) and did not have a caregiver (58.6%), as described in Table 1.

RESULTS

Table 1. Distribution of the elderly according to sociodemographic characteristics. Picos (PI), Brazil, 2014.

Variables	N	%
Sex		
Male	46	31.7
Female	99	68.3
Education		
Literate	42	28.9
Non-literate	103	71.1
Breed		
White	37	25.5
Not white	108	74.5
marital status		
Married	80	55.2
Not married	65	44.8
Has children		
Yes	131	90.3
No	14	9.7
Has caregiver		
Yes	60	41.4
No	85	58.6

Regarding the clinical characteristics, it can be observed in Table 2 that the parameter with the greatest alteration was the

measurement of the abdominal circumference, with a mean of 92.7 cm.

Table 2. Distribution of the elderly according to clinical characteristics. Picos (PI), Brazil, 2014.

Variables	Average	Standard Deviation	Minimum	Maximum
SBP*	137.1	23.2	100.0	220.0
DBP**	81.8	12.5	60.0	120.0
BMI**	25.9	3.9	13.8	34.8
Abdominal circumference	92.7	13.2	41.0	115.0

* SBP: systolic blood pressure; ** DBP: diastolic blood pressure; *** BMI: body mass index.

Regarding adherence to treatment, it was verified that level 90 was the most frequent, representing 47.6% of the sample, followed by

the percentage of 27.6% (40), referring to level 100 of the classification (Figure 1).

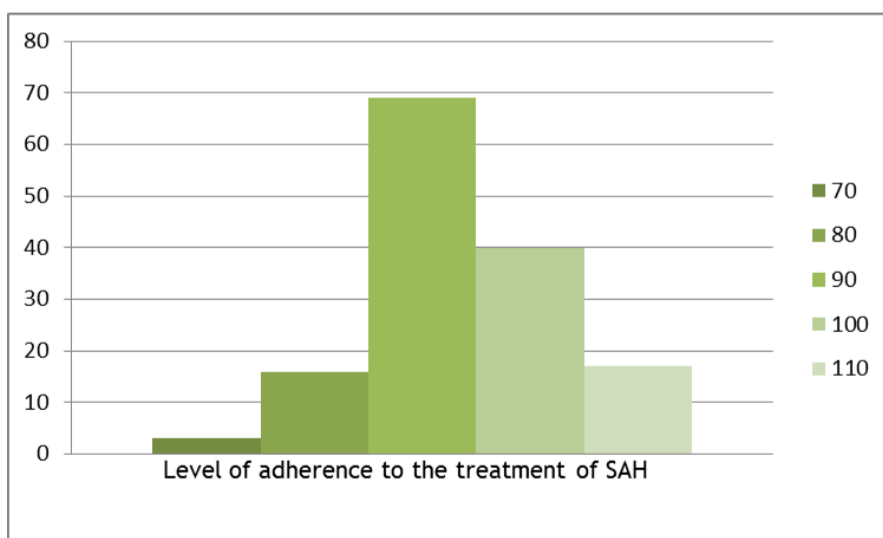


Figure 1. Distribution of the elderly, according to levels of adherence to treatment. Picos (PI), Brazil, 2014.

SAH: Systemic Arterial Hypertension.

DISCUSSION

It was prevalent, in the female sample, with participants who were non-literate, non-white, married, with children and who did not have a caregiver, corroborating with the findings of other studies.⁶⁻⁸

The analysis of socioeconomic characteristics revealed that, in the educational variable, the non literate were prevalent. This factor is relevant when it is considered that the treatment of hypertension requires, the elderly, to adopt behaviors that favor pressure control and prevent cardiovascular complications. Equally, the different levels of education presented may influence the responses of the elderly regarding adherence to the treatment of SAH.⁹

In another investigation, schooling was associated with adherence to non-pharmacological treatment, specifically physical activity.⁷ Lifestyle changes are at the heart of hypertension treatment and its achievement still poses a great challenge for people living with SAH and for professionals seeking to apply different strategies to motivate the hypertensive to change habits and participate in the management of care.¹⁰

Individuals with low levels of education may have a lower self-care performance, either because they do not understand the health professional's guidelines or lack the reading ability to understand a medical prescription or, because, they have difficulties interpreting it. These limitations of the elderly with hypertension mean discrepancies between medical prescription and drug use, poorer blood pressure control, and poor self-care performance.¹¹

Regarding the clinical variables, the mean values of pressure values were in the prehypertension classification.² BMI had a prevalent mean of 25.9, which is within the recommended values for the elderly, and the mean abdominal circumference obtained was of 92.7, considered adequate value for males, but altered for females.¹²⁻³

These findings are relevant because they are people in primary care who are at high risk for the development of complications associated with SAH.⁵

The findings reinforce the need to strengthen actions at the primary health care level for strict control of PA, BMI and CA values. The improvement in the diagnosis and treatment of hypertension is attributed to a health service, based on basic care, that should promote a permanent education

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program for professionals working in this scenario.¹⁴

In Brazil, primary health care professionals are fundamental in strategies for prevention, diagnosis, monitoring and control of blood pressure. Changes in the lifestyle of hypertensive individuals are a goal to be agreed between the user and the health professional, taking into account the cultural, racial, religious and social aspects involved.¹⁴⁻⁵

To adopt routinely in the care of hypertensive elderly patients, the determination of anthropometric measures helps in the early detection of cardiovascular risks and in the elaboration of the individual care plan to be agreed upon with the elderly to achieve better health outcomes. This investigation is important to stratify cardiovascular risk and to select the elderly, with a higher probability of complications, which will benefit from more intense interventions.²

Regarding the location of the elderly in the adherence scale to the treatment of hypertension, it was observed that levels 90 and 100 were the ones that concentrated the largest number of respondents, finding similar to that of another study⁶ in which the QATHAS was applied to 1000 respondents. It was verified that level 90 was the most frequent, indicating that forgetfulness of medication intake is still the main difficulty presented to adhere to the treatment of SAH, followed by reduction of consumption of salt, fat and sweets. These results should be interpreted by the health professional considering the aspects of care that each elder should improve in order to ascend at the level of the scale.

It is observed that pharmacological treatment and diet were the items that contributed the most to the profile presented by the elderly of this study regarding adherence to treatment. These items are objects of similar research, which demonstrate the importance of correct drug taking and the adoption of healthy dietary measures for the optimal control of BP.^{7,16}

The results show that following the drug treatment is still a challenge for the hypertensive elderly in the two FHUs studied. Therefore, they do not adhere to the treatment satisfactorily, since the medication must be continuous and independent of the symptoms. Low adherence to antihypertensive drugs is worrying, as there is growing evidence of its association with HBP complications and higher medical costs.⁹

Another point to highlight is the difficulty to adopt a balanced diet, low in fat and sweet and rich in fruits and vegetables by the elderly of the study. A randomized clinical trial, of 144 hypertensive patients, showed that a healthy diet was associated with greater reductions in blood pressure.¹⁷ Overweight is associated with a higher prevalence of hypertension from younger ages.² This factor is allied to cultural patterns that favor the acquisition and consumption of high-fat foods that have a significant impact on blood pressure elevation.

These data indicate that the levels of adherence to the treatment of hypertension presented by the elderly in this investigation are not ideal, making it necessary to carry out educational interventions that can discuss the fragility points in the treatment with the elderly so that they are sensitized to reflect about their practices and critically, analyze their conduct.

For such behaviors to be reached by older hypertensive patients undergoing treatment, it is important to prepare them and empower them to self-manage their health. This phenomenon is called self-care supported, which means recognizing the central role of people in health care.¹⁵

This concept relies on the principle that people with chronic health conditions know as much as or more of their condition and needs than do health professionals. In the self-management of the hypertensive elderly, the importance of the recognition of how is their behavior towards the health conditions is verified to evaluate the potential damage that may come to have.

Thus, the elderly hypertensive is not seen as the sole responsible for their health, but recognizes their condition and participates in the elaboration and monitoring of the care plan with the health team. It is a goal that should be sought by the elderly and health professionals to reach satisfactory levels of adherence to treatment.

CONCLUSION

The data presented indicate the elderly with low educational level, unfavorable clinical characteristics and unsatisfactory levels of adherence to the treatment of hypertension. These results indicate the need to change the behavior of hypertensive elderly and more effective actions in the primary care for the diagnosis and the control of the disease.

Thus, the follow-up of the cardiovascular risk of elderly hypertensive patients, in

primary care, is important, as well as the use of educational materials appropriate to the education of the elderly and the planning of individual goals, so that they can visualize advances in treatment.

In this sense, the study suggests the realization of educational strategies that position the hypertensive elderly in the focus of care actions, recognizing them as autonomous subjects and connoisseurs of their limitations and potentialities. Adherence to treatment may be greater when the hypertensive person feels motivated and empowered to reflect on their reality and act judiciously to transform it.

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REFERENCES

- Schmidt MI, Duncan BB, Silva GA, Menezes AM, Monteiro CA, Barreto SM, Chor D, & Menezes PR. Chronic non-communicable diseases in Brazil: burden and current challenges. *The Lancet* [Internet]. 2011 May 9 [cited 2017 June 4];377(9781):1949-61. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/21561658>.
- Malachias MVB, Souza WKS, Plavnik FL, Rodrigues CIS, Brandão AA, Neves MFT, et al. 7º Diretriz Brasileira de Hipertensão Arterial. *Arq Bras Cardiol* [Internet]. 2016 [cited 2017 Jan 10];107(3 Supl 3):1-83.
- Bastos-Barbosa RG, Ferriolli E, Moriguti JC, Nogueira CB, Nobre F, Ueta J, & Lima NKC. Treatment Adherence and Blood Pressure Control in Older Individuals with Hypertension. *Arq Bras Cardiol* [Internet]. 2012 Feb 24 [cited 2012 June 7];99(1):636-41. Available from: <http://www.scielo.br/pdf/abc/v99n1/aop05112.pdf>
- Borges JWP, Moreira TMM, Rodrigues MTP, Souza ACC, & Silva DB. Content validation of the dimensions constituting non-adherence to treatment of arterial hypertension. *Rev Esc Enferm USP* [Internet]. 2013 Apr 4 [cited 2013 July 28];47(5):1077-83. Available from: http://www.scielo.br/pdf/reeusp/v47n5/pt_0080-6234-reeusp-47-05-1076.pdf.
- Rodrigues MTP, Moreira TMM, & Andrade DF. Elaboration and validation of instrument to assess adherence to hypertension treatment. *Rev Saude Publica* [Internet]. 2014 [cited 2014 July 27]; 48(2): 232-40. Available

from:

<https://pdfs.semanticscholar.org/725a/5e96dd56057f7f023f78e8814dacfe2c053.pdf>.

6. Brasil. Ministério da Saúde. *Vigitel Brasil 2013: vigilância de fatores de risco e proteção para doenças crônicas por inquérito telefônico*. Brasília: Ministério da Saúde, 2014. Available from: <https://biavati.files.wordpress.com/2014/05/vigitel-2013.pdf>.

7. Giroto E, Andrade SM, Cabrera MAS, & Matsuo T. Adesão ao tratamento farmacológico e não farmacológico e fatores associados na atenção primária da hipertensão arterial. *Ciênc saúde colet* [Internet]. 2013 [cited 2013 May 6];18(6):1763-72. Available from:

<http://www.scielo.br/pdf/csc/v18n6/27.pdf>.

8. Borges JWP, Moreira TMM, Rodrigues MTP, Oliveira ASS, Silva DB, & Santiago LM. Hypertensive patients with complications registered at Hiperdia in Fortaleza, Ceará: implications for nursing care. *J res: fund care online* [Internet]. 2013 Oct/Dec [cited 2015 May 28];5(4):556-65. Available from: <https://dialnet.unirioja.es/download/articulo/5091042.pdf>.

9. Krousel-Wood M, Joyce C, Holt EW, Levitan EB, Dornelles A, Webber LS, & Muntner P. Development and Evaluation of a Self-Report Tool to Predict Low Pharmacy Refill Adherence in Elderly Patients with Uncontrolled Hypertension. *Pharmacotherapy* [Internet]. 2013 May 3 [cited 2013 June 30];33(8):798-811. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3729884/>.

10. Dias JAA, Oliveira RF, Castro ML, Nery PIG. Desafios vivenciados por clientes com hipertensão arterial para adesão ao tratamento dietético. *J Nurs UFPE on line* [Internet]. 2016 Oct [cited 2017 June 23];10(10):3825-32. Available from: <http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/8911>.

11. Vieira LB, Cassiani SHB. Avaliação da Adesão Medicamentosa de Pacientes Idosos Hipertensos em Uso de Polifarmácia. *Rev Bras Cardiol.* [Internet]. 2014 May-June [cited 2014 Aug 28]; 27(3): 195-202. Available from: http://www.rbconline.org.br/wp-content/uploads/Art_181_Liliana_Vieira_Artigo_Original.pdf.

12. Ministério da Saúde (BR). *Envelhecimento e saúde da pessoa idosa*. Brasília: Ministério da Saúde, 2007. Available from: <http://bvsmms.saude.gov.br/bvs/publicacoes/bcad19.pdf>.

13. Executive Summary of The Third Report of The National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol In Adults (Adult Treatment Panel III). *JAMA* [Internet]. 2001 May 16 [cited 2017 May 15];285(19): 2486-97. Available from: <http://dx.doi.org/10.1001/jama.285.19.2486>.

14. Ministério da Saúde (BR). *Estratégias para o cuidado da pessoa com doença crônica: hipertensão arterial sistêmica*. Brasília: Ministério da Saúde, 2013. Available from: http://bvsmms.saude.gov.br/bvs/publicacoes/estrategias_cuidado_pessoa_doenca_cronica.pdf.

15. Mendes EV. *O cuidado das condições crônicas na atenção primária à saúde: o imperativo da consolidação da estratégia da saúde da família*. Brasília: Organização Pan-Americana da Saúde (OPAS);2012. Available from:

http://bvsmms.saude.gov.br/bvs/publicacoes/cuidado_condicoes_atencao_primaria_saude.pdf.

16. 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 Mar/Apr [cited 2014 July 4];15(2):354-61. Available from: <http://www.revistarene.ufc.br/revista/index.php/revista/article/view/1495/pdf>.

17. Epstein DE, Sherwood A, Smith PJ, Craighead L, Caccia C, Lin P, Babyak MA, Johnson JJ, Hinderliter A, & Blumenthal JA. Determinants and Consequences of Adherence to the DASH Diet in African American and White Adults with High Blood Pressure: Results from the ENCORE Trial. *Acad Nutr Diet* [Internet]. 2012 Nov [cited 2013 Feb 7];112(11):1763-73. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/23000025>.

18. Balduino AFA, Mantovani MF, Lacerda MR, & Meier MJ. Conceptual analysis of self-management of hypertensive individuals. *Rev Gaúcha Enferm* [Internet]. 2013 [cited 2013 Apr 24];34(4):37-44. Available from: <http://seer.ufrgs.br/index.php/RevistaGauchoEnfermagem/article/view/42867/28594>.

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