



Self-care practice of patients with arterial hypertension in primary health care

Prática de autocuidado de pacientes com hipertensão arterial na atenção primária de saúde

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Objective: to evaluate the practice of self-care performed by patients with systemic arterial hypertension in primary health care. **Methods:** this is a descriptive and cross-sectional study, conducted with 92 individuals with arterial hypertension in a primary care unit. The data collection occurred through script and data analyzed using descriptive statistics (frequency, mean and standard deviation) and through the understanding of the adaption between capacity and self-care demand. **Results:** it was identified as a practice of self-care: adequate water intake, salt intake and restricted coffee, satisfactory sleep period, abstinence from smoking and alcoholism, continuing pharmacological treatment and attending medical appointments. As the demands: inadequate feeding, sedentary lifestyle, had no leisure activities, self-reported stress, and limited knowledge. **Conclusion:** although patients performed treatment a few years ago, still showed up self-care deficits, highlighting the need for nurses to advise and sensitize about the importance of self-care practice.

Descriptors: Self Care; Hypertension; Nursing; Primary Health Care.

Objetivo: avaliar a prática de autocuidado realizada por pacientes com hipertensão arterial sistêmica na atenção primária de saúde. **Métodos:** estudo descritivo, transversal, realizado com 92 pessoas com hipertensão arterial, em uma unidade de atenção primária. A coleta de dados ocorreu por meio de roteiro e os dados analisados por estatística descritiva (frequência, média e desvio padrão) e através da compreensão da adequação entre capacidade e demanda de autocuidado. **Resultados:** identificou-se como prática de autocuidado: ingestão hídrica adequada, consumo de sal e café restrito, período de sono satisfatório, abstinência ao tabagismo e etilismo, continuidade do tratamento farmacológico e comparecimento às consultas. Quanto às demandas teve-se: alimentação inadequada, sedentarismo, não possuíam atividades de lazer, estresse autorreferido e conhecimento limitado. **Conclusão:** apesar dos pacientes realizarem o tratamento há alguns anos, ainda evidenciou-se déficits de autocuidado, destacando a necessidade do enfermeiro em orientar e sensibilizar quanto à relevância da prática do autocuidado.

Descritores: Autocuidado; Hipertensão; Enfermagem; Atenção Primária de Saúde.

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Introduction

The systemic arterial hypertension is a disease that affects approximately 25.0% of the world population, with 60.0% increase prediction of cases of this disease in 2025⁽¹⁾. In Brazil, it is estimated that 30.0% of the population, from 40 years old, has arterial hypertension, a situation which has been transformed into one of the most serious Public Health problems, particularly by the complexity of the resources needed for its control and the impact of the population the health⁽²⁾.

The arterial hypertension, being a chronic degenerative disease, can cause deficits in physical, emotional and social aspects. Thus, the main objective of anti-hypertensive treatment, both pharmacological and non-pharmacological, is to reduce the risk of morbidity and mortality in people with cardiovascular diseases associated with arterial hypertension⁽³⁾.

The control of hypertension is closely related to changes in lifestyle, such as proper feeding, regular physical exercise and smoking cessation. Thus, it is emphasized that, for successful control of systemic arterial hypertension, it is necessary to practice self-care by the patient. This is defined as the realization of performing activities that individuals play to their benefit to maintain life, health, and welfare⁽⁴⁾. When self-care is effectively performed, it helps to maintain the structural and functional integrity, contributing to human development⁽⁵⁾.

However, when that self-care is not performed by the patient with hypertension, the self-care deficits arise, being essential in this situation, the insertion of health professionals to act in the awareness of patients to join the practice of self-care, to prevent complications and promote health⁽⁶⁾.

In this context, Nursing has as the main concern the need for individual self-care actions, offering, and control of these requirements on a continuing basis to sustain life and health, recover from disease and compatible with its effects. The Orem's nursing model consists of three interrelated theories: the

self-care theory, the self-care deficit theory, and the nursing systems theory. The theory of self-care, which was used in this study, encompasses the concepts of self-care, self-care activity, and therapeutic demand, in addition to the basic conditioning factors and requirements for self-care⁽⁷⁾.

Given the above, the development of studies to evaluate the practice of self-care of patients with hypertension is important, as this may encourage the development of Nursing technologies based on the demands of self-care of the patient, thereby promoting the proper performance of self-care. From this perspective, outlined the study questions: How is performed the patient's self-care with arterial hypertension accompanied by primary health care? Which factors are conditioning on self-care behaviors of patients with hypertension? Which are the demands of self-care of these patients? Contemplated to evaluate the practice of self-care, carried by patients with systemic arterial hypertension followed up in primary health care.

Methods

This is a descriptive study, with a cross-sectional design, performed in a Basic Health Unit located in *Fortaleza*, State of *Ceará*, in which attendances are made and follow-up of patients with hypertension and/or *diabetes mellitus*.

The study population was composed of patients with arterial hypertension who were waiting for the nursing consultation and/or medical or after the attendance in the unit. The sample is non-probabilistic consecutive, composed by 92 patients who met the following inclusion criteria: having a medical diagnosis of arterial hypertension, aged ≥ 18 years old; attend nursing and/or medical consultations in the unit, during the data collection period. Patients who did not have physical, psychological or cognitive conditions to answer the formulated questions were excluded.

The data collection took place from March to

June 2013, through an individual interview, which had an average duration of 25 minutes and held in reserved areas in the waiting areas of medical and/or nursing care, with the use of a script, based on Orem's self-care Theory and VI Brazilian Guidelines of Arterial Hypertension, divided into two parts: 1) Factors affecting to self-care practice, considering the sociodemographic and clinical characteristics of patients; 2) Self-care of patient with arterial hypertension.

The basic conditioning factors for self-care are internal or external factors to the individual, which affect their ability to engage in self-care, such as age, sex, stage of development, health status, socio-cultural factors, family and environmental factors, aspects of the health care system, standard of living and the availability and adequacy of resources⁽⁷⁾.

Thus, the surveyed sociodemographic characteristics were: gender, age, marital status, color, education, occupation and family income. The addressed clinical characteristics were: family history of cardiovascular disease, dyslipidemia, body mass index and the presence of other morbidities. And concerning clinical characteristics related to hypertension, were considered: time of diagnosis and treatment of arterial hypertension, types of treatment for arterial hypertension and the values of systolic and diastolic blood pressure.

The body mass index was calculated using the formula $\text{Weight}/\text{Height}^2$; the weight is given in kilograms and height in meters, both measured in the health service before the patient be attended in nursing and/or medical consultations. Blood pressure was measured by auscultation method after the interview.

Regarding the self-care therapeutic demand, which is characterized from the survey of self-care requirements or action requests, and is defined as all that is needed to regularize the human functioning and development, the following aspects were covered: 1) Universal requirements: water intake, eating habits, salt intake, consumption of artificial seasonings, work

activity, physical activity practice, leisure activity, stress, sleep hours per day and type of sleep; 2) Developmental requirements: menopause, hormone replacement, oral contraceptive use, tobacco smoking and alcohol; 3) Requirements for health deviation: knowledge about the disease and treatment, use of hypertensive drugs, abandonment or discontinuation of treatment, attending nursing and/or medical consultations, participation in educational activities and modifications after the disease⁽⁷⁾.

The data were stored in a database made in Microsoft Excel Starter 2010, processed and analyzed through descriptive statistics techniques (frequency, mean and standard deviation) and according to the referential of self-care theory, investigating the adequacy or not of the relation between capacity and self-care demand, in aspects with imbalance in this relation, with less capacity than demand, it is considered that there is a deficit of self-care.

The study complied with the formal requirements contained in the national and international regulatory standards for research involving human beings.

Results

As conditioning factors for self-care, there was a predominance of the following socio-demographic characteristics: women (71.7%); ages ranging from 26 to 89 years old, with an average of 62 years (± 10.3), predominating ≥ 60 years (64.1%); married (56.0%); nonwhites (72.8%); study time ≤ 8 years (54.3%); retired or pensioners (56.5%); with income \leq one minimum wage (55.0%), considering as reference the minimum wage at the time of the study of R\$ 678.00, equivalent to 168.24 US dollars.

The predominant clinical features were the presence of family history of cardiovascular disease (59.8%); dyslipidemia (70.7%); excess weight (80.4%), and there were overweight (48.6%), obesity grade I (35.1%), grade II (12.2%) and grade III (4.1%). They were also cited other morbidities (92.4%), such

as *diabetes mellitus*, cardiovascular disease, thyroid problems, osteoporosis, arthrosis, rheumatoid arthritis, gastritis, visual problems, labyrinthitis, kidney problems, asthma, among others.

As for the history of arterial hypertension, predominated patients who had a medical diagnosis for less than ten years (55.5%) and since then they are undergoing treatment (55.5%), mainly drug (68.5%). With regard to the values of systolic blood pressure was evidenced the following data: systolic blood pressure < 130 mmHg (31.5%), ranged between 130 and 139 mmHg (30.4%), between 140 and 159 mmHg (25.0%), between 160 and 179 mmHg (9.8%) and systolic blood pressure \geq 180 mmHg (3.3%), with an average of 134.82 mmHg (\pm 16,82) indicating that most patients were not with controlled systolic blood pressure, differently that found in relation to diastolic blood pressure, in which 59.8% had diastolic blood pressure < 85 mmHg, averaging 83.2 mmHg (\pm 13.25). These data show the existence of isolated systolic hypertension in the elderly population.

The self-care practices are exposed as the universal self-care requirements (Table 1), developmental and health deviation (Table 2).

Table 1 - Universal self-care requirements of the 92 patients with hypertension

Requirements	n (%)	CI95%
Proper feeding	42 (45.7)	35.2 – 56.4
Proper salt intake	78 (84.8)	75.8 – 91.4
Avoid use of artificial seasonings	46 (50.0)	39.4 – 60.6
Restricted coffee consumption	86 (93.5)	86.3 – 97.6
Adequate water intake	60 (65.2)	54.6 – 74.9
Appropriate sleep time	44 (47.8)	37.3 – 58.5
Uninterrupted sleep	35 (38.0)	28.1 – 48.8
Physical activity practice	30 (32.6)	23.2 – 43.2
Labor activity	23 (25.0)	16.6 – 35.1
Leisure activity	38 (41.3)	31.1 – 52.1
Stress control	36 (39.1)	29.1 – 49.9

Concerning universal self-care, the aspects related to feeding and hydration; and sleep, rest and exercise were evaluated. In feeding, prevailed patients with restricted consumption of coffee (93.5%) and low sodium diet (84.8%), which shows the adherence of patients to the restriction of salt as blood pressure control measure. In hydration, the recommendation of daily intake of two liters of water was followed. Such conduct was reported by 65.2% of patients.

However, half of the patients affirmed using artificial seasoning in food preparation and 45% an adequate food, predominantly patients with a self-care deficit in these practices.

The self-care practices related to sleep, rest and exercise were reported by the minority of patients. Regarding hours of sleep, it was found that 47.8% of interviewee sleep, at least, eight hours, with an average of 7.2 hours (\pm 1.8). However, although a large part have the proper number of hours of sleep, only 38% reported having uninterrupted sleep. Most who affirmed to have an interrupted sleep several times during the night, related to the need to go to the bathroom, which has a strong relation with the diuretic drug treatment used for these patients.

The labor activity was carried out by 25% of patients since most of the participants were retired or pensioners. As for physical activity, 32.6% of patients with hypertension affirmed they practice some physical activity.

It was found that most patients have self-care deficits as the leisure activity (58.7%), which can contribute to an increase of stress, as the majority (60.9%) presented self-reported stress which may cause an increase in blood pressure, and consequently a risk of cardiovascular complications.

Table 2 - Self-care developmental requirements and health deviation of 92 patients with hypertension

Requirements	n (%)	CI95%
Smoking abstinence	86 (93.5)	86.3 – 97.6
Alcohol abstinence	74 (80.4)	70.9 – 87.9
Post-Menopause	58 (87.9)	52.3 – 72.9
Hormone replacement	2 (3.4)	0.3 – 7.6
Use of oral contraceptives	1(1.5)	0.02 – 5.9
Knowledge about the disease	26 (28.3)	19.4 – 38.6
Participation in educational activities	23 (25.0)	16.6 – 35.1
Continuity of drug treatment	63 (68.5)	57.9 – 77.8
Attending medical appointments	81 (88.0)	79.6 – 93.9

About smoking and alcohol abstinence, it was observed that most patients with arterial hypertension in the primary care, practice this self-care, represented respectively by 93.5% and 80.4%.

Concerning the menopause, hormone replacement and the use of oral contraceptives, it was found that the 66 women were participating in the study, 87.9% were in post-menopause, that may contribute to increased arterial pressure. Those who were in post-menopause, only 3.4% made hormone replacement. Regarding the use of oral contraceptives, only 1.5% uses, while 65.2% never used and 33.3% already used at some moment in life, since most of the interviewees was elderly.

Concerning self-care practices for health deviation, most patients included: attendance at scheduled appointments (88.0%) and following the drug treatment (68.5%). It was found a deficit of self-care in the following practices: knowledge regarding the definition, factors that cause systemic arterial hypertension and care to control it, which may be related to non-participation in educational activities, as only 25% of interviewed affirmed the participation.

Discussion

It was evidenced the predominance of females, similar to what was also observed in another research with a higher percentage of individuals (74.1%) that

were female. The reason for the predominance of the female population in health services, may be due to the cultural reflection of greater health care and concern and motivated by the organization of services that enable greater availability of this population to attend consultations⁽⁸⁾. As well as women are more prevalent for arterial hypertension in the upper age group of 60 years and the overall prevalence of arterial hypertension among men and women is similar, although it is higher in men up to 50 years, reversing from the fifth decade⁽⁹⁾.

Concerning the age group, it was found that most of the studied population was at risk range, since there is a direct linear relation between blood pressure to age, with the prevalence of arterial hypertension higher of 60% of those aged above 65 years old, which can be explained by the very changes of aging that make the individual more prone to the development of systemic arterial hypertension⁽⁹⁻¹⁰⁾.

Regarding education, it was found that most had low education, it is known that increased education is inversely proportional to the percentage of patients with hypertension, who do not achieve adequate control, noting that the higher the educational level, the greater the control of blood pressure due to the possibility of increased health care, because the level of education can directly interfere with understanding of adequate guidance on treatment⁽¹¹⁾.

Evaluating the aspects related to treatment, although most have many years of diagnosis and treatment of hypertension, most only held drug treatment, indicating a lack of knowledge of these or awareness of the importance of completing the non-drug treatment for control of blood pressure. It is known that non-pharmacological treatment of arterial hypertension is to change the lifestyle and can lead to better control of systolic and diastolic blood pressure and, consequently, to reduce cardiovascular morbidity and mortality⁽¹²⁾.

The isolated systolic arterial hypertension and pulse pressure are important risk factors for cardiovascular disease in middle-aged and elderly

patients⁽¹³⁾. Thus, notes the importance of investigating the cause of this change in the study, whether it's a flaw in drug or non-drug treatment because the risk that this presents, and especially by the study population is predominantly elderly, i.e., more predisposed to these risks.

Among the self-care practices, it is the Brazilian Society of Arterial Hypertension, in its guidelines, started recommending the adoption of the *Dietary Approaches to Stop Hypertension* diet, as part of the treatment of arterial hypertension. This diet emphasizes increased consumption of fruits, vegetables, and low-fat lacteous products; including whole grains, poultry, fish and nuts; and reduced consumption of fats, red meat, sweets and soda⁽⁹⁾.

However, in this study, it was found that although most have restriction in the use of salt, largely made use of artificial seasonings, i.e. using these preparations which generally have a considerable amount of sodium, which allows us to infer the lack of guidance regarding the use of artificial seasoning and the need for nutritional counseling.

Regarding the practice of regular physical activity, it was found that a small portion had this habit, despite the importance of controlling blood pressure through direct mechanisms, such as the reduction of sympathetic activity, increased baroreflex sensitivity and improved endothelial function, such as indirect by reducing anthropometric measurements and improves the metabolic profile⁽¹⁴⁾.

Another important factor evaluated in hypertensive patients was self-reported stress, in which most often considered stressed and had no leisure activities, it is known that frequent stress leads to excessive stimulation of the sympathetic nervous system, which can lead to increased blood pressure levels and, consequently, the complications resulting from inadequate control of blood pressure⁽¹¹⁾.

Concerning the aspects evaluated for developmental self-care, about menopause, it was evidenced that the majority were in the post-menopause, period in which women have decreased

estrogen hormone and consequent reduction in an atrial natriuretic peptide, which has an important role in preventing elevated blood pressure⁽¹⁵⁾. Thus, post-menopausal women are more prone to high blood pressure as well as the occurrence of cardiovascular events, requiring greater attention from health professionals.

When considering smoking, it was found that most did not have or stopped this habit, the abstinence is a fundamental and priority measure in preventing cardiovascular diseases, however in relation to blood pressure control there is no evidence of its benefits, although the literature states that smoking is a characteristic of individuals who are more prone to develop hypertension⁽⁹⁾.

The prevalence of smoking among elderly is lower than the observed among younger individuals, which may be a result of the interruption of this habit with advancing age and thus, the emergence of morbidities related to the cigarette, because these elderly are more prone due the longer and intense tobacco exposure. In agreement with this, it was observed that a considerable portion of the sample stopped smoking after the diagnosis of arterial hypertension⁽¹⁾.

Alcohol intake for long periods can increase blood pressure and cardiovascular mortality in general. It was observed that in Brazilian populations, the excessive consumption of ethanol is associated with the occurrence of systemic arterial hypertension, independently of demographic characteristics⁽⁹⁾. However, in this study, the majority did not have this habit, which can be related to the fact that most were constituted by women and literature affirms that men tend to consume alcohol more often than women⁽¹⁶⁾.

Regarding the knowledge of the patients, showed that most had limited knowledge, highlighting that the knowledge about the disease and treatment is a factor that can influence directly in controlling arterial hypertension because it is closely related to treatment adherence. And, in general, hypertensive patients have information about their health problems,

but blood pressure levels are not properly controlled, thus pointing to the difference between knowledge and adherence⁽¹⁷⁾.

In a study which compared two groups, one that received the clinical teaching and other that did not receive, it was found that the group of individuals that received the intervention defined hypertension in a fully way and was more willing to adhere behaviorally and lifestyle changes⁽¹⁸⁾.

Thus, the health education efficiency as a therapeutic tool is very important, emphasizing the importance of the nurse as a propagator of information about the importance of healthy habits to control blood pressure and implementing interventions favorable to lifestyle changes⁽¹⁹⁾.

And because the treatment of arterial hypertension being long-lasting and influenced by financial and social conditions, lifestyle change becomes one of the barriers being faced by hypertensive, because these changes require persistence and determination, becoming then, one of the largest adhesion difficulties to the non-pharmacological treatment, since the pharmacological treatment is more convenient to be carried by the patient with hypertension⁽²⁰⁾.

Although the results were limited by the cross-sectional design, since the collection occurred in a single moment, not being possible the monitoring of patients, it was possible to get important information about self-care that enables the planning and implementation of nursing interventions to improve this practice.

Conclusion

Assessing the practice of self-care performed by patients with systemic arterial hypertension followed up in primary health care, it was found that the majority held the following practices: adequate water intake; salt and coffee intake; satisfactory nighttime sleep period; abstinence from smoking and alcohol consumption; continuity of pharmacological

treatment; and attending nursing and/or medical consultations whenever scheduled.

Regarding the self-care demands, it was evidenced that despite the patients being diagnosed and perform the treatment a few years ago, these were still present, namely: inadequate feeding; consumption of artificial seasonings; did not practice physical activities; did not have leisure activities; self-reported stress; interrupted sleep; limited knowledge about the disease and its control; and did not participate in educational activities.

It is believed that the identification of practices and the self-care demands, as well as conditioning factors for the realization of self-care, enables the definition of interventions and strategies, as well as the development of health educational actions and monitoring, to make patients with systemic arterial hypertension, more autonomous in the treatment process and able to perform self-care to prevent complications and health promotion.

Collaborations

Mendes CRS, Miranda MDC and Lima FET participated in the project construction, collection, analysis and interpretation of data, article writing and review of the final version to be published. Brito EAWS, Freitas I and Matias EO contributed to the construction of the article.

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