LIFESTYLE AND SOCIOECONOMIC PROFILE OF HYPERTENSIVE PATIENTS

ESTILO DE VIDA E PERFIL SOCIOECONÔMICO DE PACIENTES HIPERTENSOS

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ABSTRACT

Objective: to identify the socioeconomic profile and lifestyle of hypertensive patients enrolled in the Hyperdia program of the Family Health Strategy unit. **Method:** this is a quantitative, descriptive, population-based study. 253 hypertensive individuals were identified. Of these, 134 agreed to participate (52.9%). **Results:** in the socioeconomic profile, the female sex prevailed (57%); age between 60 and 69 years (33%); schooling from four to six years (56.25%); with marital status "with partner" (73%); white race (73%) and social class C1 (45%), with two residents at home (56%) and income per capita from half to a minimum wage (68%). **Conclusion:** regarding the lifestyle, it was identified that, in relation to the practice of physical exercises (92%), the participants were sedentary. Weight perception was "slightly above" (43%) and 5% of smoking habits. Regarding alcohol consumption, 9% consume it. **Descriptors:** Hypertension; Life Style; Demographic Data.

RESUMO

Objetivo: identificar o perfil socioeconômico e estilo de vida de pacientes hipertensos cadastrados no programa Hiperdia da unidade da Estratégia de Saúde da Família. **Método:** trata-se de um estudo quantitativo, descritivo, de base populacional. Foram identificados 253 hipertensos. Destes, 134 consentiram em participar (52,9%). **Resultados:** no perfil socioeconômico, prevaleceu o sexo feminino (57%); idade entre 60 e 69 anos (33%); escolaridade de quatro a seis anos (56,25%); com situação conjugal "com parceiro" (73%); raça branca (73%) e classe social C1 (45%), com dois moradores em casa (56%) e renda per capita de meio a um salário mínimo (68%). **Conclusão:** Quanto ao estilo de vida, identificou-se que, quanto à prática de exercícios físicos (92%), os participantes mostraram-se sedentários. A percepção do peso foi de "um pouco acima" (43%) e, quanto ao hábito de tabagismo, 5% o possuem. Quanto ao consumo de álcool, 9% o consomem. **Descritores:** Hipertensão; Estilo de vida; Dados Demográficos.

RESUMEN

Objetivo: identificar el perfil socioeconómico y estilo de vida de pacientes hipertensos registrados en el programa Hiperdia de la unidad de la Estrategia de Salud de la Familia. **Método:** se trata de un estudio cuantitativo, descriptivo, de base poblacional. Se identificaron 253 hipertensos. De los cuales, 134 accedieron a participar (52,9%). **Resultados:** en el perfil socioeconómico, prevaleció el sexo femenino (57%); edad entre 60 y 69 años (33%); escolaridad de cuatro a seis años (56,25%); con situación conyugal "con pareja" (73%); raza blanca (73%) y clase social C1 (45%), con dos residentes en casa (56%), y renta per cápita de medio a 1 salario mínimo (68%). **Conclusión:** en cuanto al estilo de vida, se identificó que, en cuanto a la práctica de ejercicios físicos (92%), los participantes se mostraron sedentarios. La percepción del peso fue de "un poco arriba", (43%) y, en cuanto al hábito de tabaquismo, 5% lo poseen. En cuanto al consumo de alcohol, 9% lo consumen. **Descritores:** Hipertensión; Estilo de Vida; Datos Demográficos.

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INTRODUCTION

Systemic Arterial Hypertension (SAH) has now been considered a public health problem and one of the main causes of cardiovascular, cerebrovascular and heart failure diseases in the population.

There are several factors considered to be at risk for hypertensive people, such as obesity, alcoholism, smoking, gender, ethnicity, among many others. Socioeconomic status and educational level may also influence the prevention and control of hypertension, since treatment is for the rest of life and has a certain cost, which causes several patients to abandon it.

Several people are diagnosed with SAH when they go to a simple routine appointment and, because it has no cure, the treatment should be through medication and / or changes in the person's lifestyle. Thus, the need to identify the prevalence of hypertension and which risk factors are most frequent in patients treated at the Family Health Strategy (FHS) units located in the urban area of Passos - MG is justified, in order to be aware of how many people are affected by hypertension in these units and, thus, take measures on the awareness of these people, through educational strategies easy to understand, which may contribute to a better control of hypertension and public health of the municipality.

Blood pressure (BP) is, as well as temperature, breathing and pulse, one of the main vital signs and its concept is the force that the blood exerts on the walls of the arteries.¹ By means of self-regulation of the blood vessels in dilate and compress, depending on the volume of circulating blood, it is possible to keep BP more or less constant. When there is an increase in blood volume in the vessel wall, there is vasodilation. The decrease in this volume is called vasoconstriction.²

The contraction and relaxation movements that the heart makes are called systole and diastole, where BP reaches its maximum value in systolic, Systolic Blood Pressure, SBP, and its minimum value in Diastolic Blood Pressure, DBP.²

Systolic and diastolic blood pressure values are considered optimal when they are <115 / 75mmHg, normal when <125 / 75mmHg and abnormal when reaching > 130 / 80mmHg.³

Systemic Arterial Hypertension (SAH) is considered a multifactorial clinical condition that is characterized by elevated BP levels. It is called systemic, as it can reach organs and

systems, often associating with functional or structural alterations of target organs such as the heart, brain, kidneys and blood vessels; and metabolic changes, with a consequent increase in the risk of fatal and non-fatal cardiovascular events.¹

SAH has now been considered a public health problem and one of the risk factors for the development of cardiovascular, cerebrovascular and heart failure.⁴ Several factors have been identified that act to increase BP, with an emphasis on age, gender and ethnicity, overweight, obesity, and salt intake. Some of the most important ones will be discussed below.⁵ There is a direct and linear relationship between BP and age, since it has a physiology of aging. Thus, there is a prevalence of SAH greater than 60% in the age group above 65 years, which is when SBP and DBP increase gradually in both sexes.⁶

The overall prevalence of SAH between men and women is similar. Although it is elevated in men up to 50 years, it is reversed from the fifth decade of life. Women are already exposed in special situations that contribute to the emergence of SAH, such as the use of oral contraceptives, gestation and menopause itself.⁷ Regarding race, the prevalence of SAH was considered twice greater in non-white individuals. Some studies, with a simultaneous approach of gender and color, were able to demonstrate the predominance of black women with excess of SAH up to 130% in relation to white.¹

Excess weight is associated with a higher prevalence of hypertension from young ages to adulthood, even in physically active individuals, with an increase of 2.4 kg / m² in body mass index, which carries a higher risk of developing hypertension.⁸ A The Brazilian Society of Hypertension (BSH) claims that excessive weight gain can be considered a factor that helps the development of hypertension, being responsible for 20% to 30% of cases of high BP. Seventy-five percent of men and 65% of women report daily hypertension attributable to being overweight.⁴

For those with SAH, salt intake considerably increases the volume of circulating blood, which consequently increases BP. In addition, salt acts directly on the arterial wall, leading to a constriction that elevates BP.⁹ Ingestion of alcohol for prolonged periods of time may increase BP and cardiovascular mortality in general. In Brazilian populations, excessive consumption of ethanol is associated with the occurrence of SAH.¹⁰

Physical activity reduces the incidence of hypertension, since it is able to regulate the heart rate, resulting in the reduction and regulation of BP.⁶ The low level of schooling is linked to the lower socioeconomic level, where a prevalence higher risk of hypertension and associated factors in this low-income population, as well as a risk of injury to target organs and cardiovascular events.⁶

The complications of hypertension may be associated with low income, since it may be a determining factor for adherence to treatment, when it is difficult to access it, adequate food, attending academies, among others, because they have a high cost.¹⁰ The contribution of genetic factors to the genesis of SAH in the population is well established, but there are no genetic variants that can be used to predict the risk of each individual developing SAH.¹

SAH is diagnosed by the detection of high and sustained levels of BP by chance. BP measurement procedures are simple and easy to perform, but they are not always done properly. There are some approaches that avoid errors in BP measurement, such as appropriate patient preparation, the use of standardized technique and properly calibrated equipment.¹ The evaluation and diagnosis of hypertension depend fundamentally on the correct measurement of BP, which should be performed in any health assessment.¹¹

The behavior of BP can be classified into four types: ¹

- White Apron Effect (WAE) - is the difference in pressure obtained in and out of the doctor's office, provided that this difference is equal to or greater than 20mmHg at systolic pressure and / or 10mmHg at the diastolic;

- Hypertension - the SAH line considers values of systolic BP greater than or equal to 140mmHg and / or diastolic BP greater than or equal to 90mmHg in measurements in the office. The diagnosis should always be validated by repeated measures;

- True normotension - is considered true normotension if the office measurements are considered normal;

- Isolated systolic hypertension: it is defined as the abnormal behavior of systolic BP with normal diastolic BP and, together with pulse pressure, are important risk factors for cardiovascular disease in middle-aged and elderly patients.

There is no definitive cure for SAH. There are non-medicated and medicated treatments

that allow the partial management of their symptoms, aiming to favor the adaptation of the individual and raise the expectation in their quality of life.⁴

The presence of disease in the life of an individual imposes drastic changes and adaptations in the way of being in the world. Non-drug treatment involves changes such as: weight control, food style, reduction of salt intake, unsaturated fatty acid intake, alcohol reduction, physical activity practice, psychosocial stress control, slow breathing technique, and cessation of exercise. smoking.⁴

The main objective of the treatment of SAH is the reduction of cardiovascular morbidity and mortality. Thus, antihypertensives may not only reduce BP but also reduce fatal and non-fatal cardiovascular events and, if possible, mortality.⁶ Still in relation to antihypertensive treatment, it should be considered that the scheme should maintain the patient's quality of life in a way that encourages him / her to adhere to the prescribed recommendations. And if given the need for chronic treatment of hypertension, the UHS must ensure the continuous delivery of at least one representative from each of the five major classes of antihypertensives.¹

For women who have left the menopause, treatment should always start with lifestyle changes and, when necessary, introduce antihypertensive drugs.¹ In the infant, the use of antihypertensives deserves some care, such as the fact in some way for breast milk. Safe antihypertensive medicinal products should be considered for this treatment.⁶

In 1980, with the implementation of UHS, the most important changes in the Brazilian public health system began, and as part of these changes, in 1994, the Family Health Program (FHP) was established, now called the Family Health Strategy - FHS. The objective was to reorganize the current model, with a substitutive and complementary character to conventional practices, focusing on preventive and integral care, proposing practices that result in improvements in health conditions for the population, especially those with social vulnerability, accompany people with better living conditions.¹²

The FHS incorporated the UHS principles and emerged as a new concept of health care, with a view to the conversion of the mechanistic and biomedical care model.¹² Among the specific actions of the FHS, it is worth highlighting the integral care of people living with chronic diseases infectious diseases, mainly circulatory diseases, which

are the main cause of death and physical incapacity in the world.¹²

Each team in this program is composed of one doctor, one nurse, one nursing assistant, four or six health agents.¹³

The Unified Health System (UHS) establishes, as goals, when it comes to SAH:¹³

- Link the AH patients to the Health Units (HU), following up and systematically, through training actions of the professionals and reorganization of the service;

- Detect, establish diagnosis, identify target organ damage and / or chronic complications and adopt appropriate treatment;

- Provide subsidies and encourage professionals involved in primary care to promote collective measures of primary prevention, focusing on cardiovascular risk factors;

- Recognize situations that require care in secondary and tertiary referral services;

- Assist the individual with arterial hypertension to make changes in their life habits such as food, weight maintenance and active life, favoring the reduction of blood pressure, increasing their knowledge and raising awareness of the importance of health promotion;

- Reduce blood pressure to levels below 140/90 mmHg;

- To recognize the complications of arterial hypertension, enabling the psychological, physical and social rehabilitation of patients with this disease.

The treatment of the person with SAH should be multiprofessional. In basic care, it aims to keep blood pressure levels controlled, according to patient characteristics, in order to reduce the risks of cardiovascular diseases.¹² The main challenge for basic care is to get the diagnosed patient to start treatment and maintain regular follow-up where, through him, he is motivated to adhere to medication and non-drug treatment.¹³

It should be an individualized treatment, respecting situations such as age, presence of other diseases, mental state of the patient, use of other medications, alcohol or drug dependence, patient cooperation and financial constraints.¹³ The main objectives of the treatment of hypertension include, in addition the improvement of quality of life, the prevention of acute and chronic complications related directly or indirectly to hypertension, the treatment of concomitant diseases and the reduction of mortality.⁶

The treatment of hypertension is permanent, lasting throughout the individual's life, as it is a chronic pathology. Adherence to the therapeutic plan occurs when the patient begins to know the pathology and its consequences in the long term and what benefits will come.¹³ Lifestyle can be defined as the set of habits and customs of a person that can be altered through process of socialization. These habits are most often expressed in the form of consumption of substances such as alcohol, tobacco, tea, coffee and also the performance of physical activities.¹⁴

A change in one's lifestyle contributes positively to the quality of life, which is defined by physical, mental, psychological, and emotional well-being.¹⁴

The research aims:

- To identify the socioeconomic profile and lifestyle of hypertensive patients enrolled in the Hyperdia program of the Family Health Strategy unit;
- To describe the socioeconomic and demographic characteristics;
- To classify the practice of physical activity, considering the free and leisure moments;
- To classify the patient's weight according to his / her perception;
- To find out the habit of smoking;
- To investigate alcohol consumption;
- To identify the profile of hypertensive patients.

METHOD

A qualitative, descriptive, population-based study in which the records of patients treated at the FHS-NH unit located in the urban area of Passos, MG, were investigated in order to identify the number of hypertensive patients.

The descriptive research is when the researcher will record and describe the facts visualized without interfering in them. It has the function of describing the characteristics of a certain population or establishing the relationship between variables.¹⁵

The demarcation line between normal BP and hypertension has presented variations over the years. Currently, a person with systolic blood pressure (SBP) ≥ 140 mmHg and / or diastolic blood pressure (DBP) ≥ 90 mmHg is considered hypertensive. Therefore, in this study, any patient with SBP ≥ 140 mmHg.¹ will be considered hypertensive.

The research was developed at the FHS-NH, located in the urban area of the municipality

of Passos - MG. Data collection was authorized by the City's FHS Coordinator.

The FHS incorporated the UHS principles and emerged as a new concept of health care, with a view to the conversion of the mechanistic and biomedical care model.¹²

Among the specific actions of the FHS, we highlight the integral care of people living with chronic infectious diseases, mainly circulatory diseases, which are the main cause of death and physical incapacity in the world.¹²

Each team in this program is composed of one doctor, one nurse, one nursing assistant, four or six health agents.¹³

Since it was a question of research involving human beings, the project was submitted and approved by the Institution of the Research Ethics Committee, with the opinion of No. 1,204,719 and CAAE number 45870315.80000.51¹².

Those who agreed to participate were asked to sign the Free and Informed Consent Term (FICT) in two copies, one with the user and one with the researchers.

Data collection was performed through individualized interviews with the hypertensive patients who were present during the HiperDia care, in the FHS units themselves, and also through home visits, together with a health agent from each unit.

Hiperdia is a system instituted in 2001, with the creation of the Plan for the Reorganization of Attention to Hypertension and Diabetes Mellitus, in accordance with Administrative Rule GM / MS 235, of February 20, aiming to stipulate the organization of care and to promote health, from the network users. From this plan, it was possible to create information for the acquisition, dispensing and distribution of medicines, in a regular and systematic manner, to all registered individuals.¹⁶

In each FHS of the municipality, as a source for the study, is destined one day, known as "HiperDia", in order to serve patients who are registered in the system mentioned above. This procedure helped and facilitated the contact and the application of the interviews.

All subjects who agreed to participate in this study answered a questionnaire previously tested on sociodemographic data and life habits (physical activity, smoking habits and alcoholics), at a time that did not cause discomfort or interference in their routine.

The home visits and data collection were carried out by the seventh period of the Biomedicine course of the UEMG - Universidade Estadual de Minas Gerais

(UEMG), with the participation and direct supervision of the study guides.

Inclusion criteria were: people enrolled in the HiperDia system, which the researchers had access to and who consented to participate in the research. Exclusion criteria were: people who were not found and people who did not consent to participate. The demographic and socioeconomic variables are thus categorized:

a) Age - expressed in complete years, categorized in age groups of 20 to 90 years;

b) Sex - male and female;

c) Schooling - expressed in years of study, categorized into four variables - zero to four years, five to eight years, nine to eleven years and twelve or more years;

d) Marital status - with or without a partner;

e) Self-reported race / color - white, black, brown, yellow and indigenous, according to the Brazilian Institute of Geography and Statistics - IBGE;

f) Number of residents at home - number of residents who sleep at least three nights per week at the participant's home;²⁰

g) Monthly per capita income - the calculation of the total family income divided by the number of residents of the household and analyzed according to minimum salary values in 2016 (R \$ 880.00) - up to half a minimum wage; more than half to two minimum wages; more than two to five minimum wages; more than five to ten minimum wages and more than ten minimum wages, according to the Survey of Family Budgets (SFB);

h) Economic class - classified according to the Brazilian economic classification criterion of the Brazilian Association of Research Companies (BARC), which uses information on the possession of certain items of comfort, presence of domestic servants and schooling of the head of the family. This classification fits the people in the classes from A to E, from the cuts achieved (Annex C).²²

It was considered the individual who performs physical activity at work and / or moments of rest according to criteria established by the International Physical Activity Questionnaire (IPAQ)²³ and used by Cassanelli.¹⁸ Thus, the following categories were considered:

- Very Active - the individual who fulfilled the activity recommendations:

a) Vigorous: $\geq$ five days and $\geq$ 30 minutes per session:

b) Vigorous: ≥ 3 days and ≥ 20 minutes per session + Moderate and / or walking: ≥ 5 days / wk and ≥ 30 minutes per session.

- Active - the individual who fulfilled the activity recommendations:
- a) Vigorous: ≥ 3 days / wk and ≥ 20 minutes per session;
- b) Moderate or walking: $\geq$ five days / wk and ≥ 30 minutes per session;
- c) Any activity added: $\geq$ five days / wk and ≥ 150 minutes / wk (moderate + vigorous walk).
- Irregularly Active - which is that individual who practices physical activity, however, is not enough to be classified as active. This group was subdivided into two groups:
 - Irregularly Active A - which meets at least one of the criteria of the recommendation regarding the frequency or duration of activities: A) Frequency: five days / no or B) Duration: 150 min / sem;
 - Irregularly Active B - one that has not met any of the criteria for recommendation or frequency or duration;
 - Sedentary - one who does not perform any physical activity for at least ten continuous minutes per week.

As for smoking, classified into four subtypes:¹⁷

- daily smoking - smokers were those who reported smoking at least one cigarette per day;

- occasional smoking - the participant who does not smoke every day;
- ex-smoker - who smoked regularly in the past and completely abandoned smoking for more than six months;
- non-smoker - participant who never smoked.

As for alcoholic habit, it was questioned whether the participant drinks alcohol and his favorite drink.¹⁷

The data were double-digitalized in MICROSOFT EXCEL®, stored, with the use of digital back-up, and printed periodically.

For the analysis, descriptive statistics were applied and chi-square test (χ^2) of homogeneity (because only success cases), with significance level (α) of $p < 5\%$, were applied through the PAST® software.

RESULTS

A total of 253 hypertensives were identified in the unit searched. Of these, 134 agreed to participate in the survey and 119 did not consent or could not have access to them.

As shown in table 1, the majority of hypertensive patients belong to the female sex, 76 (57%), 58 (43%) of whom were male.

Table 1. Distribution of patients according to sociodemographic variables. Passos (MG), Brazil, 2016.

Variables		n	%
Sex	Female	76	57
	Male	58	43
Age	40-49	16	12
	50-59	37	28
	60-69	44	33
	70-79	32	24
	80-89	3	2.7
	90-99	2	0.3
	< 4 years	5	3.75
Education	4 to 6 years	75	56.25
	7 to 9 years	28	21
	10 years or +	26	19
Conjugal Situation	With partner	88	66
	Without partner	46	34
Autoreffered Race/color	White	97	73
	Black	14	11
	Brown	23	16
	Yellow/Indigenous	0	0

The value of p for all these parameters was $< 0,01$.

This high number of 76 (57%) female patients can be explained by the fact that women are more concerned with their own health. Thus, they end up seeking health services more often than men and are diagnosed before them.²⁴

Men are more prone to hypertension than women up to 50 years of age and with a very small number in premenopausal women, which may be explained by the fact that female hormones protect them, increasing the chances of women presenting with hypertension from the age of 60, which

corroborated with the findings of this study, where the mean age of the women was 62 years.¹

Men are more predisposed than women up to the age of 70, and only after this age is there a higher prevalence among women.²⁵ Still in relation to gender, menopausal estrogen decline, changes in lipid profile, weight gain and sedentary lifestyle are considered important risk factors for SAH in women during menopause, when compared to those who have not yet entered it.²⁶

The variable educational level (Table 1) presented a high index in patients between four and six years of schooling, 75 (56.25%), followed by patients with schooling between seven and nine years, 28 (21%), and patients with ten years or more of study, 26 (19%). Only five (3.75%) patients had less than four years of study. Of all the patients participating in this study, only one had completed higher education and only one patient could not read.

The National Commission on Social Determinants of Health (CNCSDH) pointed out in a study carried out between 2006 and 2010, in the macroregions of Brazil, that people with 12 years or more of schooling have a lower propensity to SAH.²⁷ People with a lower level of schooling tend to adhere to treatment less frequently due to a lack of understanding about SAH, since most campaigns informing about the disease are carried out through explanatory folders, which promotes a certain difficulty in an effective treatment for these patients.²⁸ It was also questioned whether patients lived with or without a partner. The patients with companion were 88 (66%) and without companion were 46 (34%) (Table 1).

These results resembled the study²⁹ which pointed out a higher prevalence of hypertension in married people, who have a low income and present stress, factors that interfere in the well-being and lifestyle of these people. Patients with SAH, who live with their partners (married or unmarried, but live with a partner), have a better treatment adherence when compared to those who are not married.⁷

In this study, it is not possible to state whether the marital situation is a risk factor for these patients, since only hypertensive patients participated, not having a comparison with those who are not hypertensive.

The self-reported race was 97 (73%) white, 23 (16%) brown and only 14 (11%) black (Table 1). These data contrast with some authors,

1,7,10 where the black race is the most affected. The black ethnic group is more predisposed to high blood pressure than the white blood; however, because Brazil presents a large miscegenation, there is a general classification difficulty.

The social class variable (Table 2) was established by adding the points of the instrument "Classification Rule 2015" (Annex D), as defined by ABEP, 22 where the following results were obtained: 60 (45%) - Class C1; 53 (40%) - Class C2; 12 (9.5%) belonging to the ED class and only nine (5.5%) belonging to class B2. Per capita income (Table 2) prevailed between a minimum wage, with 91 (68%). The number of residents per household had a higher prevalence in those living with two people, with a total of 75 (56%).

Table 2. Distribution of patients according to socioeconomic variables. Passos (MG), Brazil, 2016.

Variable		n	%
Social class	DE	12	9.5
	C2	53	40
	C1	60	45
	B2	9	5.5
Num. of residents	1	10	8
	2	75	56
	3	13	10
	4 or +	36	26
Per capita income	≤ ½ min. wage	8	6
	½ min. wage to 1 min. wage	91	68
	> 1 min. wage	35	26

Value of p <0,01.

Social class and socioeconomic factors may be associated with hypertension, since low income impedes access to treatment and improves lifestyle. However, this is a factor that needs to be much discussed in order to arrive at concrete data.¹⁰

A survey conducted in 2009 showed that patients with a family income of up to three minimum wages had some difficulty adhering to treatment for SAH and were more in need of routine medical appointments.⁷

The age that prevailed in the study was of individuals in the age range between 60-69 years, 44 (33%), as shown in table 1.

Higher age may be considered a factor for a better adherence to the treatment of hypertension than young people, since the latter believe or, most of the time, do not feel vulnerable to this physiological condition,

and may even have SAH and not know already , initially, it is asymptomatic, making it difficult to diagnose the disease early.⁷

The variables related to the habits of life involved questions regarding the practice of activities during the work, classified in groups, according to Table 1; during off times, classified according to Table 2; the frequency, and what the patients felt about their current weight.

Regarding the type of physical activity that the person develops during the work, 307 (80%) belong to group 1, which also includes patients who do not work, as indicated in the form (Annex C); 55 (14%) belong to group 2 and 22 (6%), group 3.

Group 1	My job has activities that I have to sit down for. I do not walk much while I work. Examples: watchmaker, electro-technician in radios, industrial seamstress, bureaucratic work in the office.
Group 2	I walk quite a while while working, but I do not have to lift or carry heavy things. Example: Commercial employees, light industrial work, office work involving movement.
Group 3	I have to walk and move many things or climb stairs or ramps at work. Example: carpenters or agricultural workers, mechanical workshop work, heavy industrial work.
Group 4	My job requires heavy activities, such as moving / lifting heavy things, working with wood, or cutting too much. Examples: forestry worker, heavy agricultural work, construction, heavy industrial work.

Figure 1. Classification of the activity performed during the work. Passos (MG), Brazil, 2016. Source:¹⁷

On the other hand, the activities performed in free time or leisure time were classified into four groups (Table 2), where 355 (92%) were in group 1; seven (1.8%) are from group 2 and 22 (6.2%) are from group 3.

Group 1	In my spare time, I watch television and do things that do not need physical activity.
Group 2	In my free time, I walk, bike or move in some way that has physical activity for a minimum of 30 minutes a day, including walking, fishing or hunting, gardening and others, but do not come and go from work .
Group 3	In my free time, I do physical activities to maintain my fitness, such as running, gymnastics, swimming, ball games or heavy gardening or equivalent for at least 30 minutes a day.
Group 4	In my free time, I train periodically, several days a week, to participate in competitions, races, ball games or any sport that requires a lot of physical activity.

Figure 2. Classification of physical activity during free or leisure moments. Passos (MG), Brazil, 2016. Source:¹⁷

For the classification of the level of physical activity, IPAQ was used, where the duration of activities was established through the evaluation of free moments or leisure time and frequency, by means of the number of times per week that the patient performed these activities.

The results for the classification of physical activity bring 123 (92%) sedentary; two (1%), assets; four (3%), irregularly active A and five (4%), irregularly active B. Those patients who practice activities ≥ three days / week, with a duration of 20 minutes each, are considered active. Irregularly active A, who practice activities at least five days a week or 120 minutes of activity per week. Irregularly active B those who did not meet any of the criteria of the previous classification, and sedentary those who do not perform any physical activity for at least ten continuous minutes per week.

This evaluation consists in the fact that physical activity is the regular cause of hemodynamic adaptations that will act in the cardiovascular system, regulating and influencing the reduction of blood pressure.³⁰

Many studies have identified that regular physical activity has been shown to be quite efficient in controlling BP, where it is possible to see a decrease in SBP, ranging from 18mmHg to 20mmHg, and DBP, from 7mmHg to 9mmHg, in hypertensive patients.³¹

The vast majority of patients who participated in this study justified the lack of physical activity due to spinal problems and knee wear, which makes them more physically limited in maintaining a routine of physical activity. Another fact widely observed among those interviewed is that most people said they had diabetes. This information was not contained as a question on the form.

When the patient was asked what he thought of his current weight, 53 (40%) said they were well above normal and 57 (43%), slightly overweight.

Obesity is considered one of the main risk factors for the development of hypertension, because with the increase of fat in the blood, it can cause it to deposit on the blood vessels, forming plaques that will obstruct these vessels, leading to an increase of BP.⁸

Smoking was classified into three groups: group 1 - those who never smoked, 121 (91%); group 2 - those who smoke, even if sometimes seven (5%), and those who quit smoking, six (4%). Group 2 smokes an average of 15 cigarettes per day and those in group 3 quit smoking with an average of 17 years of smoking.

Smoking is considered one of the most influential risk factors in cardiovascular diseases, as it causes increased cardiac work, capillary endothelial dysfunction, catecholamine release, and vascular hyperreactivity through nicotine in cigarettes, thereby raising blood pressure.¹⁰

Smoking does not cause an increase in BP, but if a person with SAH is a smoker, the risk of dying from heart disease increases significantly.²⁵

Alcohol consumption was non-existent in 121 (91%) patients and 13 (9%) reported consuming alcohol.

The habit of ingesting alcoholic beverages is associated with hypertension because of an increase in blood pressure by 2 mm Hg every 30 ml of ingested alcohol.¹⁰

Every hypertensive patient should abolish or restrict the use of alcohol, since the same, in excess, can affect the cardiovascular system and cause a series of other complications in the organism.²⁵

CONCLUSION

The socioeconomic profile was mostly female (57%); aged between 60 and 69 years (33%); schooling from four to six years (56.25%); with marital status "with partner" (73%); white race (73%) and social class C1 (45%), with two residents at home (56%) and

income per capita from half to a minimum wage (68%). As for the lifestyle, it was identified that, in relation to the practice of physical exercises, 123 (92%) were sedentary. The weight perception was slightly higher, with 57 (43%) and, in relation to smoking, seven (5%) have it. Regarding alcohol consumption, 13 (9%) consume it.

Based on the results obtained in this research, the risk factor that most affects the patients of the FHS-NH unit is in relation to the practice of physical activity, where most of the participants were classified as sedentary.

The level of schooling that prevailed most in the patients was low and this result can affect the adherence to the treatment of hypertension, since, because they are lay, these patients do not inform themselves as they should about the disease.

Social class still remains a factor that needs to be further studied for more concrete data, since this and other studies pointed to a variation in it.

Statistical analysis, however, showed that all the variables studied had a very significant level of significance.

Thus, it is observed the need to adopt measures associated to the promotion of physical activity and guidelines in clearer language for these hypertensive patients, in order to assist in the prevention of complications related to SAH. The continuity of this research, in the other FHS units of the municipality, would enable a more comprehensive view of the problematic exposed in this study.

REFERENCES

1. Sociedade Brasileira de Cardiologia, Sociedade Brasileira de Hipertensão; Sociedade Brasileira de Nefrologia. VI Diretrizes Brasileiras de Hipertensão. Arq Bras Cardiol [Internet]. 2010 [cited 2014 Oct 25];95(Supl 1):1-51. Available from: <http://www.scielo.br/pdf/abc/v95n1s1/v95n1s1.pdf>
2. Pinheiro P. Valores normais da pressão arterial. MedSaúde [Internet]. 2016 [cited 2016 Nov 12]. Available from: <http://www.mdsaude.com/2014/08/pressao-arterial-normal.html>.
3. Ortega KC, Silva GV, Mion Junior D. Monitorização Ambulatorial da Pressão Arterial (MAPA). Rev Bras Hipertensão [Internet]. 2008 [cited 2016 Oct 25];14(2):209-14. Available from:
4. Ulbrich AZ, Bertin RL, Bozza R, Stabelini Neto A, Lima GZS, Carvalho T, et al. Probabilidade de hipertensão arterial a partir de indicadores antropométricos em adultos. Arq Bras Endocrinol Metabol [Internet]. 2012 [cited 2013 Nov 25];56(6): Available from: <http://www.scielo.br/pdf/abem/v56n6/02.pdf>
5. Giroto E, Andrade MF, Caprera MAS, Matsuo T. Adesão ao tratamento farmacológico e não farmacológicos e fatores associados na atenção primária da hipertensão arterial. Ciênc Saúde Coletiva [Internet]. 2013 June [cited 2016 Nov 15];18(6):1763-72. Available from: <http://www.scielo.br/pdf/csc/v18n6/27.pdf>
6. Dantas AO. Hipertensão arterial do idoso: fatores dificultadores para a adesão ao tratamento medicamentoso [trabalho de conclusão de curso]. [Internet]. Belo Horizonte: Universidade Federal de Minas Gerais; 2011 [cited 2016 Nov 09]. Available from: <https://www.nescon.medicina.ufmg.br/biblioteca/pesquisa/simples/Hipertens%C3%A3o%20arterial%20no%20idoso:%20fatores%20dificultadores%20para%20a%20ades%C3%A3o%20ao%20tratamento%20medicamentos%20o/1030>
7. Daniel ACQG, Veiga EV. Fatores que interferem na adesão terapêutica. Einstein [Internet]. 2013 July/Sept [cited 2016 Sept 10];11(3):331-7. Available from: <http://www.scielo.br/pdf/eins/v11n3/a12v11n3.pdf>
8. Jodas EMMG, Voltera AF, Ginoza M, Kohlmann Junior O, Santos NB, Cesaretti MLR. Efeito do exercício físico e suplementação de potássio sobre a pressão arterial, metabolismo glicídico e albuminúria de ratos hipertensos. J Bras Nefrol [Internet]. 2014 [cited 2016 Oct 25];36(3):271-9. Available from: <http://www.scielo.br/pdf/jbn/v36n3/0101-2800-jbn-36-03-0271.pdf>
9. Fundação Pró-Renal Brasil. Info Renal [Internet]. Curitiba: Fundação Pró-Renal; 2010 [cited 2016 Nov 17]. Available from: <http://www.pro-renal.org.br/>

10. Machado MC, Pires CGS, Lobão WM. Concepções dos hipertensos sobre os fatores de risco para a doença. Ciênc Saúde Coletiva [Internet]. 2012 May [cited 2015 Oct 28];17(5):1365-74. Available from:

<http://www.scielo.br/pdf/csc/v17n5/a30v17n5.pdf>

11. Gusmão JL, Raymundo AC, Campos CL, Mano GP, Alencar NP, Silva JS, et al. Fontes de erro na medida da pressão arterial: papel do esfigmomanômetro e do observador. Rev Hipertensão [Internet]. 2011 Sept/Oct [cited 2016 Nov 12];14(2):33-44. Available from:

http://www.sbh.org.br/pdf/2012_2.pdf

12. Ceccon RF et al. Mortalidade por doenças circulatórias e evolução da saúde da família no Brasil: um estudo ecológico. Ciênc Saúde Coletiva [Internet]. 2013 [cited 2015 May 15];18(5):1411-16. Available from:

<http://www.scielo.br/pdf/csc/v18n5/26.pdf>

13. Ministério da Saúde (BR). Estratégias para o cuidado da pessoa com doença crônica: hipertensão arterial sistêmica [Internet]. Brasília: Ministério da Saúde; 2013 [cited 2015 May 15]. Available from: <http://dab.saude.gov.br/portaldab/biblioteca.php?conteudo=publicacoes/cab37>

14. Portes LA. Estilo de vida e Qualidade de vida: semelhanças e diferenças entre os conceitos. Lifestyle J [Internet]. 2011 [cited 2016 Nov 16];1(1):8-10. Available from:

<https://revistas.unasp.edu.br/LifestyleJournal/article/view/128/127>

15. Prodanov CC, Fretas EC. Metodologia do trabalho científico: métodos e técnicas da pesquisa e do trabalho acadêmico. 2nd ed. Rio Grande do Sul: Feevale; 2013.

16. Ministério da Saúde (BR), Departamento de Informática do SUS. SisHiperDia: 2007 [Internet]. Brasília: Ministério da Saúde; 2007 [cited 2016 Nov 16]. Available from:

<http://hiperdia.datasus.gov.br/>

17. Jardim PCV, Peixoto MR, Monego EMH, Barroso WC, Souza W, Scala L. Prevalência da hipertensão arterial no Estado de Goiás. Hipertensão. 2003; 6 (Supl 1):27.

18. Cassanelli T. Prevalência de hipertensão arterial sistêmica e fatores

associados na região urbana de Cuiabá: estudo de base populacional [dissertação]. Cuiabá: Instituto de Saúde Coletiva da Universidade Federal de Mato Grosso; 2005.

19. Ministério do Planejamento, Orçamento e Gestão (BR), Instituto Brasileiro de Geografia e Estatística. Censo demográfico 2010 [Internet]. Rio de Janeiro: IBGE; 2010 [cited 2015 May 02]. Available from:

<http://www.ibge.gov.br/home/estatistica/populacao/censo2010/>

20. Jardim PCBV, Gondim RPG, Monego ET, Moreira HG, Vitorini PVO, Souza KSB, et al. Hipertensão arterial e alguns fatores de risco em uma capital brasileira. Arq Bras Card [Internet]. 2007 [cited 2016 Feb 14];88(4):452-7. Available from:

<http://www.scielo.br/pdf/abc/v88n4/15.pdf>

21. Ministério do Planejamento, Orçamento e Gestão (BR), Instituto Brasileiro de Geografia e Estatística. [Reajuste: salário mínimo será de R\\$ 880 em 2016](#) [Internet]. Rio de Janeiro: IBGE; 2015 [cited 2016 Feb 15]. Available from: <http://www.previdencia.gov.br/2015/12/reajuste-salario-minimo-sera-de-r-880-em-2016/>

22. Associação Brasileira de Empresas de Pesquisa. Critério Brasil 2015 E Atualização Da Distribuição De Classes Para 2016 [Internet]. São Paulo: ABEP; 2015 [cited 2016 Feb 16]. Available from: <http://www.abep.org/criterio-brasil>

23. International Physical Activity Questionnaire. Classificação do nível de atividade física. [Internet]. São Paulo: Celafiscs; 2006 [cited 2016 Oct 12]. Available from: <https://lafins.fefd.ufg.br/up/482/o/Classificacao-NivelAF-IPAQ2007.pdf?1435678568>

24. Dutra DD, Duarte MCS, Albuquerque KF, Lima AS, Santos JS, Souto HC. Doenças cardiovasculares e fatores associados em adultos e idosos cadastrados em uma unidade básica de saúde. Rev Fundam Care Online [Internet]. 2016 Apr/June [cited 2016 Oct 14];8(2):4501-09. Available from: <http://www.seer.unirio.br/index.php/cui>

[dadofundamental/article/view/4787/pdf_1906](#)

25. Bezerra JAL, Carreiro GSP, Bezerra AMF, Bezerra KRS, Bezerra KKS. Avaliação do estilo de vida de hipertensos no município de Malta. REBES [Internet]. 2016 Jan/Mar [cited 2016 Aug 19];6(1):15-21. Available from: <http://www.gvaa.com.br/revista/index.php/REBES/article/view/4290>

26. Silva SSBE, Oliveira SFSB, Pierin AMG. O controle da hipertensão arterial em mulheres e homens: uma análise comparativa. Rev Esc Enferm USP [Internet]. 2016 [cited 2016 Oct 28];50(1):50-8. Available from: http://www.scielo.br/pdf/reeusp/v50n1/pt_0080-6234-reeusp-50-01-0050.pdf

27. Lamarca G, Vettori M. Hipertensão arterial: o que influencia a utilização de consultas médicas em ambiente urbano e rural? Determinantes Sociais da Saúde [Internet]. 2013 July [cited 2015 Oct 15]. Available from: <http://dssbr.org/site/2013/07/hipertensa-o-arterial-o-que-influencia-a-utilizacao-de-consultas-medicas-em-ambiente-urbano-e-rural/>

28. Melo JD, Trevisol DJ, Fernandes NB, Pereira MR. Hipertensão arterial sistêmica e fatores associados na Estratégia de Saúde da Família em Imbituba SC. Rev AMRIGS [Internet]. 2016 Apr/June [cited 2016 Oct 29];60(2):108-14. Available from: http://www.amrigs.org.br/revista/60-02/08_1593_Revista%20AMRIGS.PDF

29. Esperandio EM, Espinosa MM, Martins MAS, Guimarães LV, Lopes MAL, Scala LCN. Prevalência e fatores associados à hipertensão arterial em idosos de municípios da Amazônia Legal. Rev Bras Geriatr Gerontol [Internet]. 2013 July/Sept [cited 2015 Oct 25];16(3):481-93. Available from: <http://www.scielo.br/pdf/rbagg/v16n3/v16n3a07.pdf>

30. Monteiro MF, Sobral Filho DC. Exercício físico e o controle da pressão arterial. Rev Bras Med Esporte [Internet]. 2004 Nov/Dec [cited 2016 Oct 12];10(6):513-6. Available from: <http://www.scielo.br/pdf/rbme/v10n6/a08v10n6.pdf>

31. Reis SM, Ferreira VRF, Prado FL, Lopes AMC. Análise da resposta pressórica mediante exercício físico regular em indivíduos normotensos, hipertensos e hipertensos - diabéticos. Rev Bras Cardiol [Internet]. 2012 [cited 2015 Oct 28];25(4):290-8. Available from: <http://www.rbconline.org.br/wp-content/Archives/v25n4/v25n04a04.pdf>

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