

SOCIODEMOGRAPHIC AND CLINICAL PROFILE OF PEOPLE WITH HIGH BLOOD PRESSURE MONITORED BY A FAMILY HEALTH TEAM

PERFIL SOCIODEMOGRÁFICO E CLÍNICO DE HIPERTENSOS ATENDIDOS POR EQUIPE DE SAÚDE DA FAMÍLIA

PERFIL SOCIODEMOGRÁFICO Y CLÍNICO DE LOS PACIENTES HIPERTENSOS ATENDIDOS POR EL EQUIPO DE SALUD FAMILIAR

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ABSTRACT

Objective: To describe the sociodemographic and clinical profile of patients with systemic arterial hypertension (SAH) monitored by a Family Health Team. **Method:** cross-sectional descriptive study with a quantitative approach carried out with 166 SAH patients. **Results:** mean age was 62.6 years; the majority were women (75.9%); partnered (54.2%); with a low level of education (63.9%); with dyslipidaemia (55.4%); with a sedentary lifestyle (66.3%); body mass index (BMI) was above desirable range (81.2% in adults and 64.9% in older people). The average measure of waist/hip ratio (WHR) and systolic blood pressure was above normal (120/80mmHg). **Conclusion:** study participants were young and older adults, married, with low level of education and low income. Risk factors were: dyslipidaemia, sedentary lifestyle, BMI, WHR and Waist Circumference above normal (amongst women) and high systolic blood pressure.

Keywords: Hypertension; Population Characteristics; Risk Factors; Nursing.

RESUMO

Objetivo: traçar o perfil sociodemográfico e clínico de indivíduos com hipertensão arterial sistêmica (HAS) acompanhados por uma equipe de saúde da família. **Material e método:** estudo transversal, descritivo, com abordagem quantitativa, desenvolvido com 166 portadores de HAS. **Resultados:** a idade média foi de 62,6 anos; a maioria era mulher (75,9%); tinha companheiro(a) (54,2%); possuía baixa escolaridade (63,9%); era dislipidêmica (55,4%); sedentária (66,3%) e estava com índice de massa corpórea (IMC) acima do desejável (81,2% adultos e 64,9% idosos). A média da medida da relação cintura/quadril (RCQ) e da pressão arterial sistólica estava acima do normal (120/80 mmHg). **Conclusão:** os participantes do estudo eram adultos jovens e idosos, casados, com baixa escolaridade e renda. Os fatores de risco que mais se destacaram foram: dislipidemia, sedentarismo, IMC, RCQ acima do normal, assim como a circunferência da cintura entre as mulheres e pressão arterial sistólica elevada.

Palavras-chave: Hipertensão; Características da População; Fatores de Risco; Enfermagem.

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RESUMEN

Objetivo: Describir el perfil sociodemográfico y clínico de los pacientes con hipertensión arterial sistémica (HAS) atendidos por un equipo de salud de la familia. **Métodos:** Estudio descriptivo transversal, con un enfoque cuantitativo, realizado con 166 pacientes con HSA. **Resultados:** La edad media fue de 62,6 años; la mayoría mujeres (75,9%); con un compañero (a) (54,2%); bajo nivel de educación (63,9%); dislipemia (55,4%); sedentaria (66,3%) y con índice de masa corporal por encima de lo deseable (81,2% adultos y 64,9% adultos mayores). El promedio de la medida de la relación entre cintura/cadera y de la presión arterial sistólica fue superior a lo normal (120 / 80mmHg). **Conclusión:** los participantes del estudio eran adultos jóvenes y adultos mayores, casados, con bajo nivel de escolaridad y de ingresos. Los factores de riesgo que se destacaron fueron: dislipemia, sedentarismo, IMC, RCC encima de lo normal, así como la CC entre las mujeres y la hipertensión arterial sistólica. **Palabras clave:** Hipertensión; Características de la Población; Factores de Riesgo; Enfermería.

INTRODUCTION

Systemic arterial hypertension (SAH) is a chronic disease with high prevalence and mortality rates. Its prevention and control are public health challenges.¹

Latest data demonstrate the prevalence of hypertension in Brazil in 2012 was 24.3% among people aged 18 or over; in the country's Northeast region the percentage was 23.9%.²

During 2014 there were nearly 75,000 hospital admissions for essential or primary hypertension, which represented the sixth leading cause of hospitalization among circulatory system diseases. It generated a public expenditure of over 26 million Brazilian reais.³

Some studies explored the relationship between hypertension and some variables such as age⁴⁻⁶, level of education⁶, body mass index (BMI)⁵⁻⁷, waist circumference (WC), waist-hip ratio (WHR), physical activity level⁵⁻⁷, alcohol consumption.⁶

In primary care level, SAH users are monitored by Family Health Strategy (ESF) professionals: doctor, nurse, assistant nurse or nursing technician and community health agent. These professionals initiate treatment and monitor individuals diagnosed with hypertension, as well attempt to persuade users about the importance of adherence to treatment.¹

Prevention and control of hypertension depend on lifestyle changes and the adoption of healthy habits, such as healthy diet, reduced intake of sodium and alcohol, regular physical activity and smoking cessation.⁸

Planning of sustained prevention and health promotion actions depends on the health team knowing the users' profile in order to adjust planning to each context. Since there are few scientific publications on the profile of SAH users monitored by the ESF, this study expects to provide important data about the characteristics of this population group. The present study aimed at identifying the sociodemographic and clinical profile of SAH users registered in an ESF team at the municipality of Aracaju, state of Sergipe.

METHODOLOGY

DELINEATION OF STUDY AREA

This is a descriptive cross-sectional study, using a quantitative approach.

Research sample comprised users registered in the HIP-ERDIA system of one of Aracaju ESFs. Inclusion criteria was: age equal to or older than 18; diagnosis of hypertension; prescription for antihypertensive drug treatment for at least six months; regular monitoring by ESF doctor and nurse; physical and psychological conditions to answer study questions.

The authors considered as regularly monitored users that were visited at least twice a year by a doctor and a nurse. It should be taken into account that, according to the Aracaju Health Department Protocol, SAH users with a low risk for developing a serious cardiovascular event in 10 years should be visited by a doctor and nurse every six months.⁹ The researchers chose a low risk parameter in order not to restrict sampling framing.

Of the 183 SAH users selected, four were hospitalized, nine were not located and four declined to participate. Final sample comprised 166 participants.

Sociodemographic data were as follows: gender, age, marital status, colour of skin (self-declared), level of education, employment status, income and religion. Clinical data were: family history of hypertension, cardiovascular risk factors, BMI, waist circumference, waist-hip ratio, use of prescription drugs, time of diagnosis, tests, blood pressure range and complications of hypertension. Data collection tool was devised by the researchers; face and content validation was performed by three health care experts. Based on the former's analysis, the authors adjusted data collection tool. After that, researchers ran a pilot test with 10 users and found there was no need for further adjustments. At this point, they resumed data collection.

The authors considered significant the following anthropometric variables: WC and WHR, whose parameters used were WC (midpoint between the lower edge of the last rib and the lateral iliac crest)¹⁰, HC (hip circumference), and the level of the great trochanter.¹¹ The normal values of WC were 88 cm for women and 102 cm for men;^{8,11} and of WHR, 0.85 kg/m² for women and 0.95 kg/m² for men.¹¹

Data analysis used individual frequency-based descriptive analysis for nominal or categorical variables, central tendency (mean and median) and dispersion (standard deviation) for continuous variables. The researchers applied the Spearman correlation test in order to evaluate correlations between sys-

tolic blood pressure (SBP) and diastolic blood pressure (DBP) and the following variables: age, BMI, WC and WHR. Mann-Whitney test checked the relationship between SBP and DBP with the variables gender, education, ethnicity, smoking, alcohol consumption and physical activity level. The significance level was 0.05.

Data collection started after the project was approved by the Ethics Committee of the Federal University of Sergipe (CAAE – 0328.0.107.107-11).

RESULTS

The average age of study participants was 60 and over; 75.9% were female; 54.2% had a partner; 71.7% self-declared as non-black and had complete or incomplete elementary education (63.9%). The average household monthly income was less than two minimum wages (R \$ 1,020.1). Considering the minimum wage at the time was R\$ 622.00, most participants (79.5%) earned up to two minimum wages (Table 1).

Regarding the clinical features of the participants, 78.3% had a family history of hypertension; 55.4% had dyslipidaemia; 66.3% had a sedentary lifestyle. Among those in the 33-59 age range, 81.2% had a BMI above desirable; among the elderly, percentage was 64.9%. The average WC among women was above normal, as well as the WHR in both sexes. On average, participants were using 1.84 antihypertensive drugs medicines (Table 2). The most common class of medications used to control hypertension were angiotensin converting enzyme (ACE) inhibitors and angiotensin receptor blockers.

Table 1 - Socio-demographic characterization of the sample (N = 166). Aracaju, 2012

Variable	N (%)	Min-Max	Mean (SD)
Age (in years)		33 – 86	62.6 (10.9)
Gender			
Female	126 (75.9)		
Male	40 (24.1)		
Marital status			
Partnered	90 (54.2)		
Not partnered	76 (45.8)		
Skin colour			
Black	47 (28.3)		
Brown	87 (52.4)		
White	32 (19.3)		
Level of education			
Illiterate	29 (17.5)		
Elementary education	106 (63.9)		

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Table 1 - Socio-demographic characterization of the sample (N = 166). Aracaju, 2012

Variable	N (%)	Min-Max	Mean (SD)
Level of education			
Secondary education	30 (18.1)		
Higher education	1 (0.6)		
Employment status			
Employed	11 (6.6)		
Unemployed	18 (10.8)		
Retired or pensioner	104 (62.7)		
Self-employed or housewife	33 (19.9)		
Household monthly income *		557.1- 1020.1	
Up to one minimum wage	57 (34.3)		
More than one and up to two minimum wages	75 (45.2)		
More than two minimum wages	33 (19.9)		
Dependents		0 – 12	2.1 (2.0)
Religious: yes	131 (78.9)		

*n=165.

Table 2 - Clinical characterization of the sample (n = 166). Aracaju, 2012

Variables	N (%)	Min-Max	Average (DP)
Family history of hypertension			
Yes	130 (78.3)		
No	12 (7.2)		
Unknown	24 (14.5)		
Other cardiovascular risk factors			
Cholesterol levels above normal	92 (55.4)		
Diabetes	64 (38.6)		
Alcoholic: yes	17 (10.2)		
Sedentary lifestyle: yes	110 (66.3)		
Desirable BMI for adults: BMI <25 kg/m ² (n=69)	13 (18.8)		
Desirable BMI for older adults: BMI <27 kg/m ² (n=97)	34 (35.1)		
Waist circumference			
Man		82 – 194	101.2 (17.8)
Woman		50 – 132	98.0 (13.3)
Waist-to-hip ratio			
Man		0.88 – 1.53	1.0 (0.1)
Woman		0.51 – 1.14	0.9 (0.0)
Daily drug intake		0 – 9	3.4 (1.7)
Daily SAH medication intake		0 – 4	1.7 (1.8)

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Table 2 - Clinical characterization of the sample (n = 166). Aracaju, 2012

Variables	N (%)	Min-Max	Average (DP)
Time for diagnosis			
Less than one year	5 (3.0)		
One year or more	161 (97)		
Last time blood tests were performed (in months)			
Cholesterol		1 - 348	8.8 (27.1)
Glycaemia		1 - 348	8.2 (27.1)
Urine		1 - 348	9.2 (27.2)
Blood pressure (mmHg)			
Systolic		100 - 260	145.9 (25.5)
Diastolic		50 - 130	84.0 (13.3)
SAH complications			
Heart disease	20 (12.0)		
Acute myocardial infarction	9 (5.4)		
Kidney disease	5 (3.0)		
Cerebrovascular accident	6 (3.6)		

Time between patient-reported symptoms and definitive diagnosis of hypertension were in 97% of the cases a year or more. Time elapsed between cholesterol, blood sugar and urine testing was, on average, superior to eight months. Mean SBP was above normal (145.96). Among the complications of hypertension the most prevalent was heart disease (Table 2).

The authors analysed also the relationship between blood pressure and the following variables: gender, race, smoking and alcohol consumption and physical inactivity. The mean SBP and DBP found was: women (147.23 mmHg; 84.17 mmHg); non-white people (146.19 mmHg, 84.10 mmHg); smokers (145.69 mmHg; 83.90 mmHg); alcoholics (145.55 mmHg; 83.65 mmHg); and individuals with sedentary lifestyle (147.97 mmHg, 84.27 mm Hg). The percentages obtained were higher than those shown in Table 3. However, there was no statistically significant mean difference.

Table 3 - Relations SBP and DBP and the variables gender, skin colour, smoking, alcohol consumption and physical activity level (n = 166). Aracaju, 2012

	SBP (mmHg)			DBP (mmHg)		
	Min-Max	Median (DP)	p	Min-Max	Median (DP)	p
Gender						
Female	100 - 260	147.2 (27.3)	0.60	50 - 130	84.1 (13.9)	0.71
Male	110 - 192	141.9 (18.2)		60 - 119	83.5 (11.3)	
Level of education						
Up to elementary education	100 - 240	146.4 (24.2)	0.23	50 - 122	83.5 (13.3)	0.50
Secondary education or more	110 - 260	143.9 (30.8)		62 - 130	86.0 (13.3)	
Skin colour						
White	100 - 200	145.0 (23.1)	0.96	60 - 120	83.6 (11.9)	0.99
Non white	110 - 260	146.1 (26.1)		50 - 130	84.1 (13.7)	
Smoker						
Yes	120 - 190	151.2 (24.7)	0.46	70 - 100	86.2 (9.1)	0.38
No	100 - 260	145.6 (25.6)		50 - 130	83.9 (13.5)	
Alcohol consumption						
Yes	120 - 260	149.5 (34.1)	0.93	70 - 130	87.1 (13.0)	0.29
No	100 - 240	145.5 (24.4)		50 - 122	83.6 (13.4)	
Physical activity						
Yes	100 - 190	142.0 (21.1)	0.21	60 - 100	83.5 (9.5)	0.82
No	110 - 260	147.9 (27.3)		50 - 130	84.2 (14.9)	

Correlations between SBP and DBP with the variables, age, WC, WHR and BMI were weak (r <0.30).

DISCUSSION

The average age of the sample was over 60 years old; most participants were female. Such results are similar to those found in a study carried out in Campinas, São Paulo.⁴ It is important to point out that, among individuals with SAH, women over 65 are more likely to develop cardiovascular problems.⁸

The low percentage of men in the study may be explained by the fact that they seldom seek primary health care services.¹² In a study carried out in João Pessoa, state of Paraíba, nurses identified the following as hindrances to the effectiveness of men's primary health care: aspects related to men's health care seeking behaviour (absence from primary health care centre, poor preventive self-care behaviour, uncertainties regarding employment stability); aspects related to health professionals (inadequate training in men's health care, lack of information about the Men's Comprehensive Health Care Programme); and aspects related to the health care services (feminization of primary care services, incompatibility between work and health service schedules, and increased demand for primary care services).¹²

Most participants were partnered, with a low level of education which corroborates another study carried out in Pelotas, state of Rio Grande do Sul, that aimed at describing the profile of hypertensive and diabetic individuals registered in the HIPERDIA programme.¹³ Average family income was below two minimum wages. The planning of preventive and health promotion actions should consider the above aspects since it is essential to consider the contexts of individuals, families and communities in order to propose a realistic plan of action.

A study carried out in Maringá, state of Paraná, whose objective was to analyse links between chronic non-communicable disease (NCD) and risk factors demonstrated that development of NCDs is likely to increase in individuals with a low level of education.¹⁴ Such finding indicates the need for the individual to follow a DASH (Dietary Approaches to Stop Hypertension) diet and medication treatment.¹³ A low level of education may interfere with adherence to long-term treatment.

Study participants presented an array of cardiovascular risk factors, namely: dyslipidaemia, sedentary lifestyle, above normal BMI, above normal WC (among women), WHR and high systolic blood pressure.

A study carried out at a cardiology clinic in Goiania, state of Goiás, identified dyslipidaemia as the most prevalent comorbidity in SAH patients of both sexes, which could possibly be related to other diseases associated with hypertension, such as coronary artery disease, heart failure and cerebrovascular accident.¹⁵

Another research carried out in Londrina, state of Paraná, which aimed at determining the prevalence of abdominal obesity and associated factors in hypertensive patients, revealed that most participants, considering WHR and WC measurements, presented abdominal obesity.¹⁶

Those physically active had lower BP average levels that suggest that physical activity can positively affect the control of SAH. According to the VI Brazilian Hypertension Guidelines, regular physical activity is necessary in order to maintain good cardiovascular health, provided the patient's health conditions are duly assessed.⁸

Smoking and drinking alcohol were variables associated with higher blood pressure levels. In addition to physical activity, cessation of smoking and control of alcohol consumption can prevent hypertension.⁸

CONCLUSION

Study sample comprised young and older adults, married, with a low level of education and low income. Main risk factors were: dyslipidaemia, sedentary lifestyle, BMI, WHR and WC (amongst women) above normal, as well as and high systolic blood pressure. The reduction of modifiable cardiovascular risk factors is essential to control the disease, prevent complications, and reduce hypertension-associated morbidity and mortality rates.

The results of this study can help the planning of health care actions addressed to hypertensive patients taking into account individual characteristics in order to provide comprehensive and quality health care service.

One limitation of the study was the restricted sample size: having established as inclusion criterion medical records of at least two doctor's and two nursing visits within one year the authors realized that primary care users do not always attend medical consultations which affect negatively planning and achievement of goals.

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