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# Profile of hypertensive and diabetic elderly in a municipality in Sergipe

Perfil de ancianos hipertensos y diabéticos en un municipio de Sergipe

Perfil de idosos hipertensos e diabéticos de um município de Sergipe

## ABSTRACT

**Objective:** To know the profile of elderly people with Systemic Arterial Hypertension (SAH) and / or Diabetes Mellitus (DM), to identify their knowledge about these diseases, risk factors and complications, as well as to carry out health education about the central theme of research. **Method:** Quantitative and qualitative research of an explanatory interventionist nature composed of 60 elderly people registered in a Basic Health Unit in a municipality in Sergipe. **Result:** The sample had an average age group of 73 years old, 70% women. Of the most frequent complications, Congestive Heart Failure stood out (35%). 56.66% reported a high consumption of carbohydrates daily, in addition to the habit of adding salt to ready-made food (31.66%). The main risk factor identified was sedentary lifestyle (78.33%). **Conclusion:** The research was of great relevance to add knowledge about the profile of patients with diseases, showing the importance of the performance of health professionals in relation to them.

**DESCRIPTORS:** Elderly; Arterial Hypertension; Diabetes Mellitus; Risk factor.

## RESUMEN

**Objetivo:** Conocer el perfil de las personas mayores con Hipertensión Arterial Sistémica (HAS) y / o Diabetes Mellitus (DM), identificar su conocimiento sobre estas enfermedades, factores de riesgo y complicaciones, así como realizar educación sanitaria sobre el tema central de investigación. **Método:** Investigación cuantitativa y cualitativa de carácter intervencionista explicativa compuesta por 60 ancianos inscritos en una Unidad Básica de Salud de un municipio de Sergipe. **Resultado:** La muestra tuvo un grupo de edad promedio de 73 años, 70% mujeres. De las complicaciones más frecuentes destacó la Insuficiencia Cardíaca Congestiva (35%). El 56,66% refirió un alto consumo de carbohidratos al día, además del hábito de agregar sal a la comida preparada (31,66%). El principal factor de riesgo identificado fue el sedentarismo (78,33%). **Conclusión:** La investigación fue de gran relevancia para sumar conocimiento sobre el perfil de los pacientes con enfermedades, mostrando la importancia del desempeño de los profesionales de la salud en relación a ellos.

**DESCRIPTORES:** Anciano; Hipertensión arterial; Diabetes Mellitus; Factor de riesgo.

## RESUMO

**Objetivo:** Conhecer o perfil de idosos portadores de Hipertensão Arterial Sistêmica (HAS) e/ou Diabetes Mellitus (DM), identificar o conhecimento dos mesmos sobre essas doenças, fatores de risco e complicações, bem como realizar uma educação em saúde acerca da temática central da pesquisa. **Método:** Pesquisa quanti-qualitativa de cunho explicativo intervencionista composta de 60 idosos cadastrados em uma Unidade Básica de Saúde de um município de Sergipe. **Resultado:** A amostra teve uma média de faixa etária de 73 anos de idade, sendo 70% mulheres. Das complicações mais frequentes, destacou-se a Insuficiência Cardíaca Congestiva (35%). 56,66% relataram um alto consumo de carboidratos diariamente, além do hábito de adicionar sal à comida pronta (31,66%). O principal fator de risco identificado foi o sedentarismo (78,33%). **Conclusão:** A pesquisa foi de grande relevância para agregar conhecimento quanto ao perfil dos pacientes portadores das doenças, evidenciando a importância da atuação dos profissionais de saúde frente aos mesmos.

**DESCRIPTORES:** Idoso; Hipertensão; Diabetes Mellitus; Fator de risco.

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## **INTRODUCTION**

**T**he United Nations (UN) defines the elderly from the chronological age, being considered elderly the person with 60 years old or more in developing countries, like Brazil, and with 65 years old or more in developed countries. <sup>1</sup> In 2015, 12% of the world population was represented by the elderly, with a forecast of doubling by 2050. <sup>2</sup>

With the exponential increase of this population, Chronic Noncommunicable Diseases (NCDs) tend to grow more and more. The high increase in these diseases, characteristic of this epidemiological transition, makes the analysis of this population's lifestyle habits relevant. <sup>3</sup>

Cardiovascular diseases, cancers, chronic respiratory diseases and diabetes mellitus (DM) are the main NCDs, having been responsible, in 2015, for 51.6% of the total deaths in the population between 30 and 69 years in Brazil, according to data from the Mortality Information System (MIS). <sup>4</sup> In addition to these data, among the main causes of premature and preventable deaths in Brazil are cardiovascular diseases, diabetes, chronic kidney diseases and some cancers. <sup>5</sup>

**The adoption of healthy habits is important in all age groups, especially among the elderly, as it can prevent and control the progression of numerous diseases, thus favoring a better quality of life.**

Systemic arterial hypertension (SAH) is the main factor for cardiovascular complications, a condition that affects people of advanced age to a greater degree. Given this, special attention is needed with the development of preventive and health promotion measures for this population. <sup>6</sup>

The adoption of healthy habits is important in all age groups, especially among the elderly, as it can prevent and control the progression of numerous diseases, thus favoring a better quality of life. <sup>3</sup> According to the Brazilian Guidelines on Arterial Hypertension, among the adoptions of healthy habits to control the disease, the following can be highlighted: abstaining from smoking and / or drinking, the practice of physical exercise and balanced diet, these being linked to modifiable risk factors. <sup>7</sup>

Just as hypertension affects the elderly population to a greater extent, diabetes is also a pathology that develops with greater emphasis in this public. According to Silva, Engroff, Sgnaolin, Ely and Gomes <sup>8</sup>, DM is characterized as one of the most common chronic diseases in the elderly. Also, like SAH, it is essential that users with diabetes be informed about the risk factors to which they are exposed. <sup>9</sup>

Cavalcanti, Oliveira, Medeiros and Távora 3 affirm that to enable the promotion of health care for the elderly, it is relevant to adopt measures aimed at understanding the reality of this population in order to encourage them to participate in health services to adhere to healthy lifestyle habits, such as way to minimize health problems and recover health, increasing their life expectancy.

In view of the above, this study is justified in view of the real breadth identified worldwide regarding the subject addressed and the relevance of health promotion interventions focused on the theme.

The following guiding questions were formulated: what is the knowledge of the elderly who have SAH and/or DM about the disease and its complications? What is the number of cases of complications in old age?

Thus, the objective of this study was to know the profile of elderly people with SAH and/or DM, to identify their knowledge about these diseases, risk factors and complications, as well as to carry out health education about the central theme of search.

## METHODS

This is a quantitative-qualitative research of an explanatory interventionist nature composed of elderly people from Sergipe. To define the sample, a sample calculation was used, adopting a 95% confidence level ( $Z=1,96$ ), the expected amount of correctness is 95%, the expected error is 5% and the accuracy level of 5%, based on the formula:  $n=Z^2 \times P \times Q \times N / e^2 \times (N-1) + Z^2 \times P \times Q$ . Where:  $Z$ = Confidence level;  $P$ = Quantity of correct answers expected (%);  $Q$ = Amount of expected error (%);  $P$ = Sample population;  $E$ = Level of precision (%) (MIOT, 2011). The sample size ( $n$ ) was determined in 52 subjects, adding 15% of possible sample losses, resulting in 60 subjects.

As an inclusion criterion, indivi-

**A amostra foi composta por 60 idosos com faixa etária média de 73 anos de idade, sendo a maior parte do sexo feminino (70%). Em relação às características sociodemográficas, quanto à escolaridade, observou-se a predominância do ensino fundamental incompleto (80%), e 11,6% referiram ter nível superior completo ou incompleto.**

duals needed to be 60 years of age or older, be registered at the Basic Health Unit (Unidade Básica de Saúde - UBS) in Malhador/Sergipe and accept to participate voluntarily in the study. Data collection took place in the months of April and May 2019, using an instrument created by the researchers. It started with the observation of the medical records registered in the Hypertensive and Diabetic Patients Program (HYPERDIA). Then, at home, the data collection instrument was applied and the Free and Informed Consent Form (ICF) was signed.

Individualized intervention was carried out through health education at the time of the home visit, considering the clinical complications and the risk of worsening of each user found when examining their medical records. The information obtained was stored in Microsoft Excel 2020 and analyzed in a descriptive manner, calculating the absolute and relative frequencies of the studied variables. This study was approved by the Ethics and Research Committee of Centro Universitário Estácio de Sergipe under number CAAE 08065019.9.0000.8079.

## RESULTS

The sample consisted of 60 elderly people with an average age of 73 years old, most of them female (70%). Regarding sociodemographic characteristics, as for education, there was a predominance of incomplete primary education (80%), and 11,6% reported having completed or incomplete higher education (Table 1).

It was found 38,33% with a history of DM and SAH in the family and 36,67% had a diagnosis of SAH and DM associated (Table 2).

When analyzing the most frequent clinical complications among those surveyed, Congestive Heart Failure (CHF) stands out (35%).

Regarding eating habits, there was a high consumption of carbohydrates

Table 1. Distribution of sociodemographic data and characterization of respondents

Sexo	N	%
Feminino	42	70
Masculino	18	30
<b>Faixa etária</b>		
60 a 64 anos	10	16,66
65 a 69 anos	14	23,33
70 a 79 anos	17	28,33
80 anos a 89 anos	16	26,66
≥90 anos	03	05
<b>Estado civil</b>		
Solteiros	10	16,7
Casados	25	41,7
Viúvos	25	41,7
<b>Nível de escolaridade</b>		
Nunca estudou	03	05
Fundamental incompleto	48	80
Fundamental completo	01	1,66
Ensino médio incompleto ou completo	01	1,66
Superior incompleto ou completo	07	11,66
<b>TOTAL</b>	<b>60</b>	<b>100</b>

Source: research data, 2020.

Table 2. Family history and diagnosis of respondents.

Antecedentes familiares patológicos	N	%
História familiar de HAS	15	25
História familiar de DM	10	16,66
História familiar de DM e HAS	23	38,33
Não soube informar	12	20
<b>Diagnóstico Clínico</b>		
DM	04	6,66
HAS	34	56,66
DM e HAS	22	36,67
<b>TOTAL</b>	<b>60</b>	<b>100</b>

Source: research data, 2020.

Table 3. Drugs used in treatment.

Medicamentos utilizados	N	%
<b>HAS</b>		
Losartana	24	40
Hidroclorotiazida	20	33,33

daily (56,66%), in addition to the habit of adding salt to ready-made foods (31,66%). 46.66% reported not having the habit of consuming vegetables, fruits and vegetables, while 70% stated consuming fruits daily (Table 4).

The main risk factor identified was sedentary lifestyle (78,33%). In addition, 38,33% of hypertensive elderly people had uncontrolled blood pressure (BP), while 23.33% of diabetics had unstable blood glucose. Despite the subjects having SAH and/or DM, none of them was able to describe what they understand about the diseases. About the knowledge of the causes of their complications, 66,66% do not understand what causes (Table 5).

## DISCUSSION

In the present study, it is possible to observe a higher prevalence of pathologies in females (70%). This fact was also evidenced in the study by Prates, Souza, Prates, Moura and Carmo<sup>10</sup>, in which the female sex was the most prevalent (70%).

It was found that the most frequent complications related to SAH and DM were Congestive Heart Failure (CHF), Venous Insufficiency and Stroke (CVA), unlike the study by Guimarães Filho, Sousa, Jardim, Souza and Jardim<sup>11</sup>, in which the most frequent complications observed were stroke and acute myocardial infarction in both sexes.

Regarding the medications used by the hypertensive elderly, the use of Losartana, Hydrochlorothiazide and Amlodipino prevailed, respectively, as well as in the study by Fava, Silva, Gonçalves, Gomes, Machado and Veiga<sup>12</sup>, which evidenced a greater use of Angiotensin II Antagonist, Calcium Channel Blockers and Thiazide Diuretics as a method of drug therapy most used by hypertensive patients.

Nevertheless, of the users who had DM and had hypoglycemic treatment applied, the majority adopted Metformin, Insulin and Glibenclamide as a

Anlodipino	16	26,66
<b>DM</b>		
Metformina	14	23,33
Insulina NPH	8	13,33
Glibenclamida	07	11,66

Source: research data, 2020.

Table 4. Clinical complications, limitations caused by diseases and eating habits of the interviewees.

Complicações	N	%
Insuficiência Cardíaca Congestiva	21	35
Insuficiência Venosa	20	33,33
Acidente Vascular Encefálico	19	31,66
<b>Limitações provocadas pela doença</b>		
Limita moderadamente as atividades diárias	35	58,33
Limita muito intensamente	12	20
Não soube responder	13	21,66
<b>Frequência do consumo de carboidratos na semana (bolo, pão, batata)</b>		
Diariamente	34	56,66
3 vezes por semana	2	3,33
Difícilmente	24	40
<b>Hábito de adicionar sal à comida pronta</b>		
Sim	19	31,66
Não	41	68,33
<b>Consumo de verduras ou legumes cozidos</b>		
Nunca ou 1 vez na semana	28	46,66
Diariamente	32	53,33
<b>Consumo de frutas</b>		
Nunca ou 1 vez na semana	18	30
Diariamente	42	70
<b>TOTAL</b>	<b>60</b>	<b>100</b>

Source: research data, 2020.

Table 5. Risk factors, data on blood glucose and blood pressure, knowledge about diseases and causes of complications.

Fatores de riscos encontrados	N	%
Ausência de atividade física	47	78,33
Realizo atividade física regular	6	10
Tabagista	7	11,66
<b>Triagem (glicemia capilar e pressão arterial)</b>		
Pressão arterial acima do nível esperado (120x80mmHg)	23	38,33
Glicemia capilar acima do nível esperado (100-120mg/dl)	14	23,33

drug, corroborating the study by Córralo, Binotto, Bohnen, Santos and De-Sá<sup>13</sup> in relation to the drugs used to control DM2. Of the elderly patients who participated in the research, Metformin was the most used, followed by Insulin and Glibenclamide.

In this study, the main risk factors for the occurrence of hypertension and DM complications were sedentary lifestyle and smoking. In a similar study, it is highlighted that 85% of the patients reported not practicing regular physical activity and half of the participants stated that they considered themselves overweight. In addition to these factors, 15% represent the number of individuals who have a smoking habit.<sup>10</sup>

The interviewees' eating habits were evaluated, and it is noticeable that most of these habits were partially adequate. However, the study by Cembranel, Bernardo, Ozcariz and D'Orsi<sup>14</sup> demonstrated that a large part of the interviewees did not eat the recommended daily amount of fruits and vegetables.

It should be noted that dietary education is an essential point for metabolic control for patients with DM and SAH, however, the Brazilian Diabetes Society<sup>15</sup> reports that changing eating habits represents a challenging point in the self-care process.

From the results found, it was found that none of the users knew how to describe what they understand about the disease and 66,66% did not know how to explain the causes of complications, in agreement with Tavares, Bertoldi, Mengue, Arrais, Luiza, Oliveira, Ramos et al.<sup>16</sup>, who evidenced low-quality self-perceived health and their intervention in adhering to treatment, contributing to worsening related to the disease.

Dias, Pardim, Antunes, Silva, Alves and Jorge<sup>17</sup> state that the elderly patient should be informed about the importance of self-care for effective treatment, preventing more serious complications that, consequently, sa-

Não apresentaram alteração	23	38,33
<b>Conhecimento sobre as doenças</b>		
Não sabe descrever o que entende sobre as doenças	60	100,0
<b>Conhecimento sobre às causas das complicações</b>		
Entende o que provoca complicações da doença	20	33,33
Não entende o que provoca às complicações da doença	40	66,66
<b>TOTAL</b>	<b>60</b>	<b>100</b>

Source: research data, 2020.

## CONCLUSION

The research was of great relevance to add knowledge about the profile of the elderly with SAH and/or DM, showing the importance of the performance of primary care health professionals in view of the main vulnerabilities identified in these patient profiles, in addition to enabling intervention on patients' knowledge about diseases, treatments, medications and non-medications, as well as guidelines for the prevention of possible complications. The study may support future research on the subject using interventionist approaches. ■

turate the attendance services, in addition to generating a relevant economic and social impact.

In Silva's study<sup>18</sup>, it is possible to verify the importance of activities aimed at education and the relevance of

the professional-client relationship, aiming at improving the quality of life of people living with NCDs, favoring the reorientation of life habits and increasing adherence to treatment and encouraging self-care.

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