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Overweight Incidence in Users of a Primary Health Care Unit with Arterial Hypertension

Incidência do excesso de peso em usuários com hipertensão arterial em uma unidade básica de saúde

Incidencia del exceso de peso en usuarios con hipertensión arterial en una unidad básica de salud

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The purpose of the study was to survey the incidence of overweight in the population with systemic arterial hypertension (SAH) attended in nursing consultations in a Basic Health Unit (BHU). This is a descriptive study, quantitative and retrospective, where the Body Mass Index (BMI) of 62 users diagnosed with SAH in the period between October 2015 and May 2016 was analysed. 58 individuals analysed were found to have an excessive weight (95.09%), 34 have some degree of obesity (58.62%) and 24 are overweight (31.38%). The study identified a high incidence of excessive weight among the group which was evaluated, obesity being more common than overweight. Excess weight was directly proportional to age and predominant in women.
Descriptors: Overweight; Obesity; Hypertension.

O objetivo do estudo foi fazer o levantamento da incidência do excesso de peso na população com Hipertensão Arterial Sistêmica (HAS) atendida em consulta de enfermagem em uma Unidade Básica de Saúde (UBS). Este é um estudo descritivo, quantitativo e retrospectivo, que analisou o Índice de Massa Corporal (IMC) de 62 usuários com diagnóstico de HAS no período de outubro de 2015 a maio de 2016. Encontrou-se 58 indivíduos com excesso de peso (95,09%), 34 apresentavam algum grau de obesidade (58,62%) e 24 apresentam sobrepeso (31,38%). O estudo identificou elevada incidência de excesso de peso no grupo avaliado, com a obesidade mais incidente que o sobrepeso. O excesso de peso apresenta-se diretamente proporcional a idade e com predominância nas mulheres.
Descritores: Sobrepeso; Obesidade; Hipertensão.

El objetivo del estudio fue realizar el levantamiento de la incidencia del exceso de peso en la población con Hipertensión Arterial Sistémica (HAS) atendida en la consulta de enfermería en una Unidad Básica de Salud (UBS). Este es un estudio descriptivo, cuantitativo y retrospectivo, que analizó el Índice de Masa Corporal (IMC) de 62 usuarios con diagnóstico de HAS en el periodo de octubre de 2015 a mayo de 2016. Fueron identificados 58 individuos con exceso de peso (95,09%), 34 presentaban algún grado de obesidad (58,62%) y 24 presentan sobrepeso (31,38%). El estudio identificó unaelevada incidencia de exceso de peso en el grupo evaluado, con más alta incidencia de obesidad que de sobrepeso. El exceso de peso se presenta directamente proporcional a la edad y predominantemente en mujeres.
Descriptores: Sobrepeso; Obesidad, Hipertensión.

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INTRODUCTION

Through the last decades Brazil has been going through three important processes which are meaningfully changing the lifestyle of the population, which are: the demographic transition, the epidemiological transition and the nutritional transition[1,2].

These phenomena are characterized by meaningful alterations, such as the fall in natality rates and the increase in the elderly population; the urbanization which overtook the rural population; the changes in the morbimortality profiles which have been influencing the actions took by health care services and the way in which these actions are performed[1]; the last decade changes in the eating habits of the Brazilian population, including a diminished basic food intake and an increase in the consumption of ultra-processed foods[2].

These processes stimulate and encourage th emergence and the increase of many non-transmissible chronic diseases (NTCDs), among which are obesity and sistemic arterial hypertension (HAS). Many NTCDs are caused and induced by geographic, cultural, environmental and hereditary factors. Despite the fact that parasitary and infeccious diseases are still an important reality in Brazil, a decrease in these illnesses can be noticed[1,2].

According to the World Health Organization (WHO), obesity is a multi-factorial illness, originated in most cases by energy imbalance, when the individual consumes more energy than they spend[3]. Obesity can still be defined as body mass index (BMI)>30 Kg/m^2[4].

Obesity presents itself both as a NTCD and as a risk factor to several other diseases and complications. Among these diseases are the SAH, diabetes type 2 (DM type 2), cardiovascular diseases, strokes, and certain types of cancer[5].

According to the Brazilian Guidelines for Obesity and Overweight, "the etiology of obesity is complex and multifactorial, resulting from the interaction among genes, environment, lifestyles and emotional factors"[6]. According to the National Food and Nutritional Politics (PNAN), among the main factors that determine obesity are the demographic, socio-economical, epidemiological and cultural ones, not to mention the environmental factors[7].

The expression excess weight is understood as overweight and obesity. According to this concept, half the population of Brazil, among women and men, are overweight. This is an alarming finding, since many of these individuals are already victims of NTCDs, which increases the risk of complications derived from these pathologies[8].

The BMI presents itself as a valuable nutritional evaluation tool, as it is a non-invasive and low cost procedure, as well as easy to measure and highly efficient[8].

The BMI of adults is expressed in Kg/m^2, its measure being achieved via a simple division of the weight (Kg) by the square of height (m^2). A BMI between 25 Kg/m^2 and 29,9 Kg/m^2 is considered to represent overweight; a BMI among 30 Kg/m^2 and 34,9Kg/m^2, as obesity I; among 35 Kg/m^2 and 39,9Kg/m^2 obesity II; and above 40Kg/m^2, as obesity III. The WHO considers normal the values among 18,5Kg/m^2 and 25 Kg/m^2[5].

According to the System for the Surveillance of Risk Factors and the Protection Against Non-transmissible Chronic Diseases through Telephonic Inquiries (Vigitel), obesity has been increasing by 1% every year, among the Brazilian population[9]. According to the Brazilian Institute of Geography and Statistics (IBGE), in 1976, 2.8% of men and 7.8% of women were obese; in 2003, 27 years later, the prevalence of obesity in men and women had increased to, respectively, 8.8% and 12.7% The prevalence of obesity in 2009 was 12.5% among men and 16.9% among women[10].

The SAH is a multifactorial chronic clinical condition, characterized by elevated and sustained levels of arterial pressure (AP), above 140mm/Hg x 90mm/Hg. The SAH is associated to changes in the target-organs (heart, brain, kidneys and blood vessels) and

metabolic changes with an increase in cardiovascular events[11].

The SAH is, such as obesity, a NTCD with multifactorial causes. The document "Guideline for Systemic Arterial Hypertension, Diabetes Mellitus and Chronic Renal Disease" states that obesity, which constitutes excessive weight, is a risk factor for the development of SAH in individuals over 20 years of age, focusing in the important of weight reduction to the control of pressure levels and increase in the quality of life[12].

It is estimated that from 20% to 30% of the Brazilian people among 18 and 59 years old are victims of SAH, and that number is 50% among people between 60 and 69 years of age[11]. The estimates for the state of Minas Gerais, Brazil, is that 20% or more people over 20 years of age are affected by SAH[13].

Cardiovascular diseases are the main causes of death among the Brazilian population, being that excessive weight (overweight and obesity) and SAH are risk factors for cardiovascular complications such as the stroke and the Acute Myocardial Infarction (AMI), illnesses which impact the lives of people, societies, families, and health services in all complexity levels[5,8,12].

The excess weight is considered one of the biggest problems in public health, as it affects several different age groups, but the SAH has been stabilizing its percentages, whilst obesity has been increasing in the Brazilian population throughout the last decades[7]. These two NTCDs, thanks to their magnitude, deserve to receive attention from health managers, professionals, and academics, in order for pertinent actions to be created, targeting the promotion, prevention and recovery of the health of these individuals[14,15].

The aim of this study is to survey the incidence of excessive weight in the population with SAH cared for in nursing consultations in a Primary Health Care Unit (UBS, in the Brazilian acronym) .

METHODS

This is a descriptive, quantitative, and retrospective study, conducted with the information of people who have SAH, live in the scope and go to a UBS in the municipality of Patrocínio - MG. The municipality is located in the Triângulo Mineiro/Alto Paranaíba region, and its population is estimated in 88,648 inhabitants, with an HDI of 0.799[16,17].

The UBS has a Family Health Team (ESF) constituted by two ESF groups, each one responsible for one area. These areas are numbered 17 and 19. The UBS is a primary care unit with a specific population circumscribed to its responsibility, among which are the areas defined for each of its teams, their consultations both spontaneous and scheduled. The UBS cares for individuals, families, and the collective as a whole, generating actions for health promotion and protection, including diagnosis, treatment, and health rehabilitation according to the National Policies for the Primary Care, according to the decree 2488/2011[18].

The 62 people who make use of the UBS were analyzed, all of whom had a SAH diagnosis, were in the area attended by the UBS, and underwent a nursing consultation specifically targeted at SAH between October 2015 and May 2016. Data were collected retrospectively, according to the information in the individual records of each person. The variables evaluated were: a) the SAH diagnosis; b) age; c) gender; d) BMI.

Data was processed and managed through the use of the softwares Microsoft Word® and Excel®, both in their 2007 versions, being that the graphs were made with an exploratory analysis, in order for the data found to be made explicit.

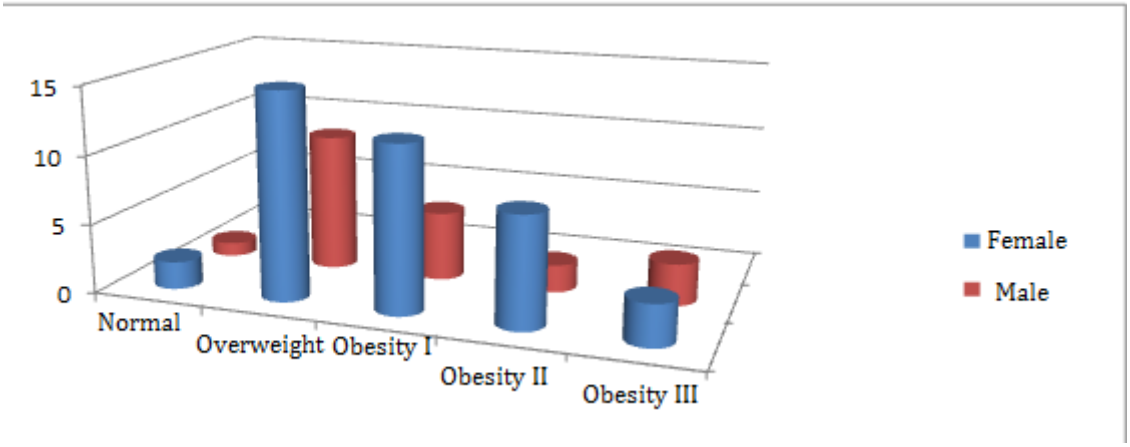
Before the research and its data collection were conducted, an authorization, in two forms in paper and signed by a competent authority, was required from the institution. It included the delivery of a free informed consent form, being thus compliant to the criteria from the Resolution 466/2012, from the National Health Council (CNS)[19]. By those means, the privacy and identity of the patients whose records were analyzed were guaranteed.

RESULTS

After data process and analysis, 58 individuals were found to be overweight (95.09%) and 3 had a BMI within the normal range (3.28%) (Chart 1). One individual, in the study, was underweight (1.63%), not being inserted in the aforementioned chart. According to the charts, this user had Chronic Renal Failure (CRF).

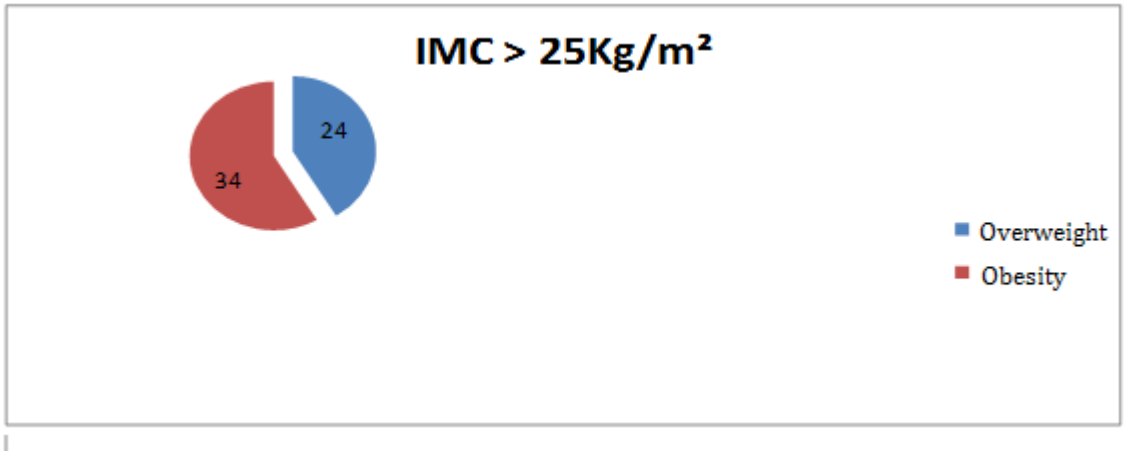
As for the gender of the participants, two women had a regular BMI (5.00%), 15 were overweight (37.50%), 12 had class 1 obesity (30.00%), 8 had class II obesity (20.00%) and 3 had class III obesity (7.50%). Among males, one man had a normal BMI (4.54%), 10 were overweight (45.45%), 5 had class I obesity (22.72%), 2 had class II obesity (9.09%) and 3 had class III obesity (13.63%) (Figure 1).

Figure 1. Distribution of patients with SAH, overweight, and class of obesity by gender. Patrocínio /MG, Brasil. October 2015 to May 2016.



From the 62 individuals with arterial hypertension, 34 presented some degree of obesity (58.83%) and 24 were overweight (38.70%). Among the users whose BMI is considered to be above obesity thresholds, six were morbidly obese (17.64%) (Figure 2).

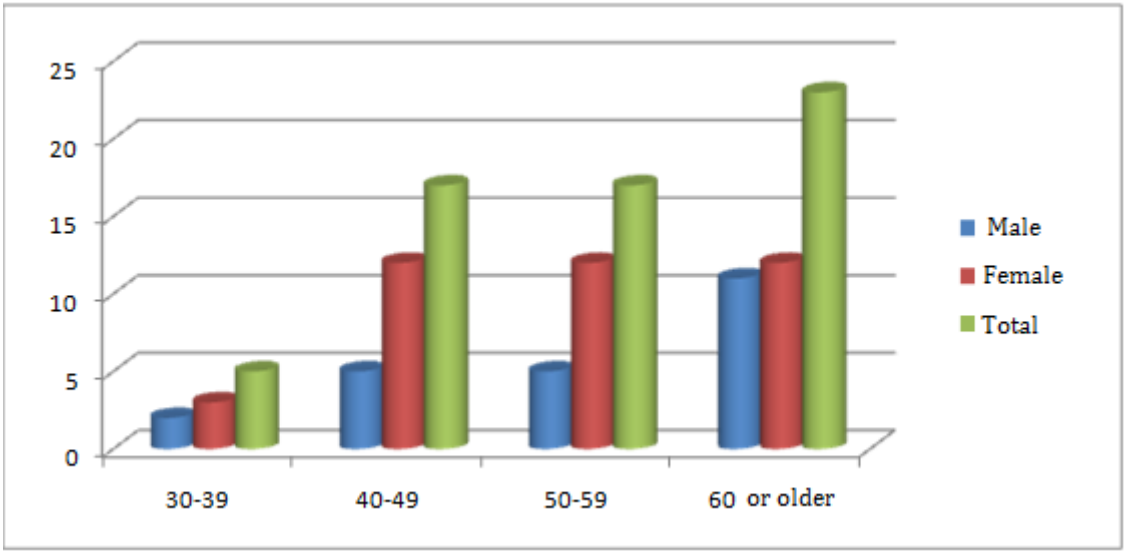
Figure 2. Distribution of patients with SAH, overweight and obesity. Patrocínio/MG, Brazil. October 2015 to May 2016.



There are no patients under 30 years of age in this study. Regarding their age, among male patients, two of them were between 30 and 39 years of age (3.22%), five between 40 and 49 (8.06%), 5 between 50 and 59 (8.06%) and 11 were 60 years old or older (17.74%). Among the women, three were between 30 and 39 years of age (4.83%), 12 were between 40 and 49 (19.35%), 12 were between 50 and 59 (19.35%) and 12 were 60 years old or older (19.35%) (Chart 3).

In the age group between 40 and 59 years of age, the proportion of patients was 70.58% among men and 29.42% among women. In the age groups between 30 and 39 years of age, and 60 years old or older, more equitative proportions were found, being that 60.00% of women belonged to the first age group, and 52.17% belonged to the last one (Figure 3).

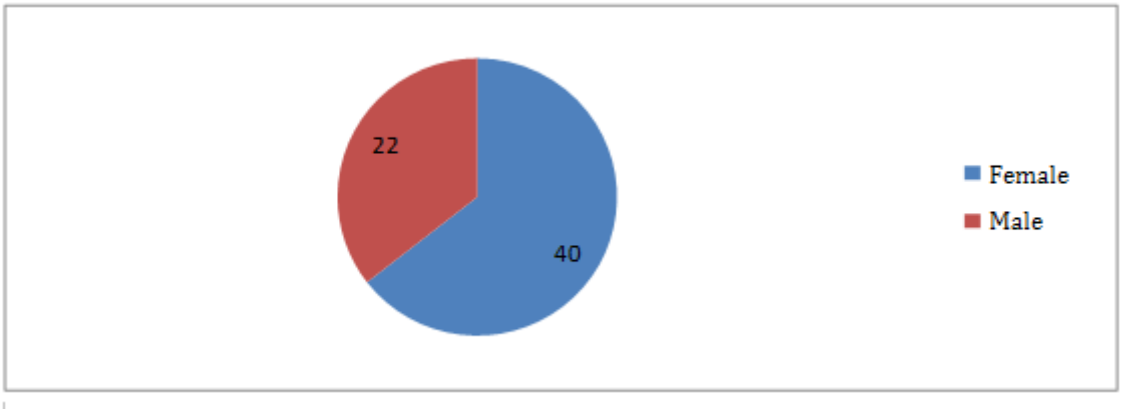
Figure 3. Distribution of patients with SAH by gender and age group. Patrocínio/MG, Brazil. October 2015 to May 2016.



It was noted that the amount of women in the research is superior to the amount of men. Among the 62 individuals, 40 are women (64.51%) and 22 are men (35.49%).

This information comes from the grand total of patient records evaluated in the study, regardless of the BMI found (Figure 4).

Figure 4. Distribution of patients with SAH by gender. Patrocínio/MG, Brazil. October 2015 to May 2016.



DISCUSSION

The ascension of NTCDs in the Brazilian population is visible in the services of primary health care, not ignoring the cultural and regional differences that exist throughout Brazil [15,19].

The study was conducted in an UBS in an urban area, in a country town of the state Minas Gerais. The economy of the region is based on the agrarian sector. The population studied uses the facilities of the Unified Health System (SUS) and are treated for SAH in the UBS, with their risk level and

multiprofessional evaluations periodically conducted.

From the 62 evaluated patients, all were affected by SAH. The absence of people under 30 years old in the variable age indicates that excess weight is proportional to the increase in age. Age is therefore a natural and unmodifiable risk factor, important for the development of SAH[8,12,16].

The study shows a connection between SAH and excessive weight as a reality both local and present in the scientific literature, which can and must be more deeply studied as to other variables not discussed by this study. The estimated number of Brazilians affected by SAH show that those are individuals above 20 years of age. The risk of developing SAH increases according to age; it is of 30.00% in individuals above 18 years of age, and can reach 50.00% among individuals between 60 and 69 years of age[11]. In the state of Minas Gerais, Brazil, it is estimated that 20.00% of people older than 20 years of age are hypertensive[12]. The study found a greater number of hypertensive patients among people with 60 years of age or older, comparing the age groups in decades.

The incidence of excessive weight in the studied group is high, 95.09% of the individuals being hypertensive, with a BMI above 25Kg/m^2. From these, 58.62% have a BMI in the obesity range, and among these, 6 are morbidly obese (17.64%). These are concerning numbers, considering the quality of life of these people, and the quality of life they may have in the future.

Bringing together the estimations of excessive weight conducted by the IBGE between 1976 and 2009, it can be verified that cardiovascular diseases, that are frequently complications of SAH and obesity, will continue to increase in the Brazilian population, demanding efforts for the establishment of health policies targeted at them[20-24].

Such an analysis incites the thought that the costs of health services will rise[24]. Once the complication sets in, the patient may require medical treatment of medium to high complexity, frequently going back to a low complexity treatment with irreversible sequelae, and requiring continuous support for the rest of their lives.

The fact that women are more frequently classified as overweight than men can be justified by the higher amount of women among the individuals in the research, not to mention that the number of women who look for health services is higher [25,26].

Overweight and obesity are diseases and risk factors for several NTCDs and complications simultaneously[8]. This concerning and relevant characteristic must serve as a warning for health services to offer assistance to overweight patients, due to the impacts that can be generated in the individuals' health, families, society, and in the very health services, in all complexity levels, all over Brazil. The actions taken must be multiprofessional intersectoral, and start as soon as possible[19,20].

The indexes of excessive weight in the group studied in this UBS are worrisome, and require pertinent and well planned actions from the team to prevent and fight against the main modifiable factors. It is believed that such factors might be responsible for the high incidence of BMI above 25Kg/m^2 in the population with SAH evaluated in the area of scope of the UBS.

The BMI analysis showed itself to be a very accessible and low cost technique to evaluate the health of a certain population. It should be noted that the BMI is a non-invasive, efficient, and easily applied technique. It is very useful for health services and used all over the world[8,23].

However, it presents some limitations, as it is incapable of detecting the precise location of fat in the body, and fails to distinguish between lean body mass and body fat[6]. These data would be useful to distinguish overweight users who have an acceptable percentage of lean body mass. The levels of visceral abdominal and subcutaneous fat would also prove to be relevant, as visceral fat is more harmful to the organism and more difficult to be eliminated.

NTCDs, including the SAH and obesity, need to be studied in more detail and profundity for their impact of their complications in the people to be better evaluated, something that happens satisfactorily in Brazil[24].

However, it is shown that more analytic NTCDs related studies are required in the specific sectors of different health professionals, for those to be compared to more extensive researches led by large research centers.

CONCLUSION

The study identified a high incidence of excessive weight in the evaluated group, obesity being more common than overweight.

The excessive weight was directly proportional to age and was more common among women. People with an SAH diagnosis were evaluated, suggesting a connection among SAH and excessive weight, which was positively indicated. The variables have proved themselves to be conditional for the incidence of SAH and excessive weight, suggesting the possibility of future complications emerging.

The research shows a troubling reality for health services, demanding answers and planning from managers, professionals, and from the population as a whole, if they are to confront the NTCDs. The main actions must be conducted targeting at the modifiable risk factors from the start.

It is necessary to evaluate more deeply the data obtained, by using other variables that this research did not contemplate, such as sedentary lifestyles, smoking, socioeconomic and cultural factors, presence of a diagnosis of metabolic syndrome, diabetes mellitus, chronic renal disease, medical and family history.

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CONTRIBUTIONS

Ricardo Dias da Silva was responsible for the study development, data collection, analysis and writing of the article.

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