

Eating habits of the elderly from a city in the countryside of Minas Gerais, Brazil**Hábitos alimentares de idosos em um município do interior mineiro, Brasil****Hábitos alimentarios de ancianos en un municipio del interior de Minas Gerais, Brasil****Received: 01/07/2017****Approved: 25/11/2017****Published: 01/08/2018****Márlon Martins Moreira¹****Virgínia Souza Santos²****Matheus Martins Moreira³****Jeise Oliveira⁴****Luan Augusto Alves Garcia⁵****Álvaro da Silva Santos⁶****Jair Sindra Virtuoso Júnior⁷**

Healthy eating has an important role in the maintenance of health, especially considering the consumption of fruit and vegetables, which brings benefits to the functioning of the organism. Their inadequate or insufficient consumption is one of the ten main risk factors for the global load of diseases. This study aimed to identify the quality of the eating habits of elders from a municipality in the countryside of the Minas Gerais state, in Brazil. A questionnaire was applied to investigate the eating habits of 244 elders from an urban area of the state. Data was analyzed through a descriptive analysis. It was found that the elders consume a lot of foods made up of refined carbohydrates, sugars and lipids. New studies are needed to relate food consumption to the incidence and prevalence of chronic diseases in this population.

Descriptors: Feeding behavior; Elders; Chronic diseases.

A alimentação saudável tem um importante papel na manutenção da saúde, com destaque para o consumo de frutas, verduras e legumes que trazem benefícios ao funcionamento do organismo, sendo que seu consumo inadequado ou insuficiente se apresenta como um dos dez principais fatores de risco para a carga global de doenças. Este estudo teve como objetivo identificar a qualidade alimentar dos idosos de um município do interior mineiro. Foi aplicado um questionário investigando os hábitos alimentares de 244 idosos residentes na zona urbana. Para a análise dos dados foi realizada uma análise descritiva. Identificou-se alto consumo de alimentos compostos por carboidratos refinados, açúcares e lipídeos. Novos estudos são necessários para relacionar o consumo alimentar com a incidência e prevalência de doenças crônicas nesta população.

Descritores: Hábitos alimentares; Idosos; Doenças crônicas.

La alimentación saludable tiene un importante papel en la mantención de la salud, especialmente el consumo de frutas, hortalizas y verduras que traen beneficios para el funcionamiento del organismo; mientras que su consumo inadecuado o insuficiente se presenta como uno de los diez principales factores de riesgo para la carga global de enfermedades. Este estudio tuvo como objetivo identificar la calidad alimentaria de los ancianos de un municipio del interior de Minas Gerais, Brasil. Fue aplicado un cuestionario investigando los hábitos alimenticios de 244 ancianos residentes en la zona urbana. Para el análisis de los datos fue realizado un análisis descriptivo. Se identificó un alto consumo de alimentos compuestos por carbohidratos refinados, azúcares y lipoideos. Nuevos estudios son necesarios para relacionar el consumo alimenticio con la incidencia y prevalencia de enfermedades crónicas en esta población.

Descriptores: Conducta alimentaria; Anciano; Enfermedad Crónica.

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INTRODUCTION

The fast populational growth has been the target of many discussions worldwide. In Brazil, the interest in this theme is due to an increase in the life expectancy of the elderly population, to the contribution of technological advances in the field of health, to the reduction in natality rates, in addition to the fact that Brazilian society, especially its leaders, is unprepared to face the challenges brought forth by these changes^{1,2}.

Anatomic and functional changes are part of the physiological process of aging, and reverberate in the state of health of elders, especially in aspects related to their nutrition³.

The association of these alterations to the use of medication, which is common in this public, increases the chance of malnutrition, in addition to provoking the appearance of many diseases, especially non-transmissible chronic ones, which can hinder the entire process of ingestion, digestion, absorption and use of the nutrients, or even increase the need for them^{3,4}.

In addition, socioeconomic conditions^{4,5} can directly influence the nutritional state, since they often make it harder to have access to good foods. Hence the importance of rich and varied eating habits among the elders, so that they can avoid nutritional imbalance and seek to live longer and with a better quality of life⁴.

Studies have shown that the appearance of non-transmissible chronic diseases and risk factors such as obesity, physical inactivity, alcoholism and smoking is related to inadequate eating habits^{6,7}. The qualitative characteristics of the diet influence in the emergence of these health problems in all moments of life⁸.

Studies about food consumption which evaluate individuals and their ingestion of specific food groups are very scarce in Brazil, in addition to being restricted to specific populations. Aspects related to the nutrition and eating habits of elders are scarcely studied in Brazil, and little explored³.

The lack of knowledge about the eating situation of elders, when this new

demographic reality is considered, requires new investigations to be conducted. Therefore, this study aimed to identify the quality of the eating habits of elders from a city in the countryside of the Minas Gerais state, in Brazil.

METHOD

This is a cross-sectional, descriptive and quantitative study, with the participation of elders who attended the Family Health Strategy (ESF) in the municipality of Rio Paranaíba (MG) from July to October 2014. This is a small sized municipality from the countryside of the state of Minas Gerais, with an estimated population of 12,431 people in 2016⁹, and a population density of 8.79 inhabitants/km². The city, whose main economic activity has been agriculture and livestock, is passing through a period of change due to the creation, in 2006, of a campus from the Viçosa Federal University, turning it into the smallest city in the country to have a university campus.

Initially, a list was acquired, including the names and addresses for all the elders registered in each micro-area attended by the selected ESF team. The sample was made up of 244 participants, selected randomly from a population of 738 individuals aged from 60 to 69 years old and 587 who were 70 years old or older. Together, they represented 10.7% of the number of people in the city.

The inclusion criteria adopted were: being 60 years old or older, living in an urban area and having the cognitive capability to answer the questions in the questionnaire. Individuals who refused participation as well as those who could not be found after three attempts of contact were excluded from the research.

The interview was conducted in the residence of the elders, by trained researchers, so that the sample could be characterized and information on the eating habits and intake obtained. Two meetings were conducted with the team of data collection, aimed at standardizing the collection and guaranteeing the less possible changes in the interviews.

The questionnaire included sociodemographic questions, recent food intake changes, total of meals consumed, consumption of ultra-processed foods and sausages, consumption of fats and animal proteins, as well as fruits, vegetables, and alcohol ingestion.

This study followed the guidelines of resolution 46.610, from December 12, 2012, which enforce norms and regulations for researches involving human beings in Brazil.

RESULTS

The sociodemographic condition of the elders interviewed is described in table 1. Most participants were female (59%), between 70 and 79 years of age (48.4%) and 83.2% of them had a monthly income from 1 to 2 minimum wages. 2.9% (n=7) of the participants stated to consume alcohol daily, and 2% (n=2) said to be smokers.

Table 1. Sociodemographic conditions of elders from the city of Rio Paranaíba (MG), 2014.

Variables		Total	
		n	%
Gender	Female	144	59.0
	Male	100	41.0
Age group (years)	60 to 69	4	1.6
	70 to 79	118	48.4
	≥ 80	116	47.5
	Not informed	6	2.5
Income	<1 minimum wage	6	2.5
	1 to 2 minimum wages	203	83.2
	≥ 3 minimum wages	35	14.3
Alcoholics	No	237	97.1
	Yes	7	2.9
Smokers	No	239	98.0
	Yes	5	2.0

Although most elders were 70 years old or older, only 2.3% (n=6) reported to have severely diminished food intake, while 20.4% (n=50) reported a moderate diminution. Most participants, 63.5% (n = 155), have from 4 to 6 meals a day, among which the most common

were breakfast, lunch, afternoon snacks, and dinner. Considering the quality of food intake regarding energetic foods, the high consumption of certain foods stood out, such as refined carbohydrates, lipids and ultra-processed foods, as Image 1 indicates.

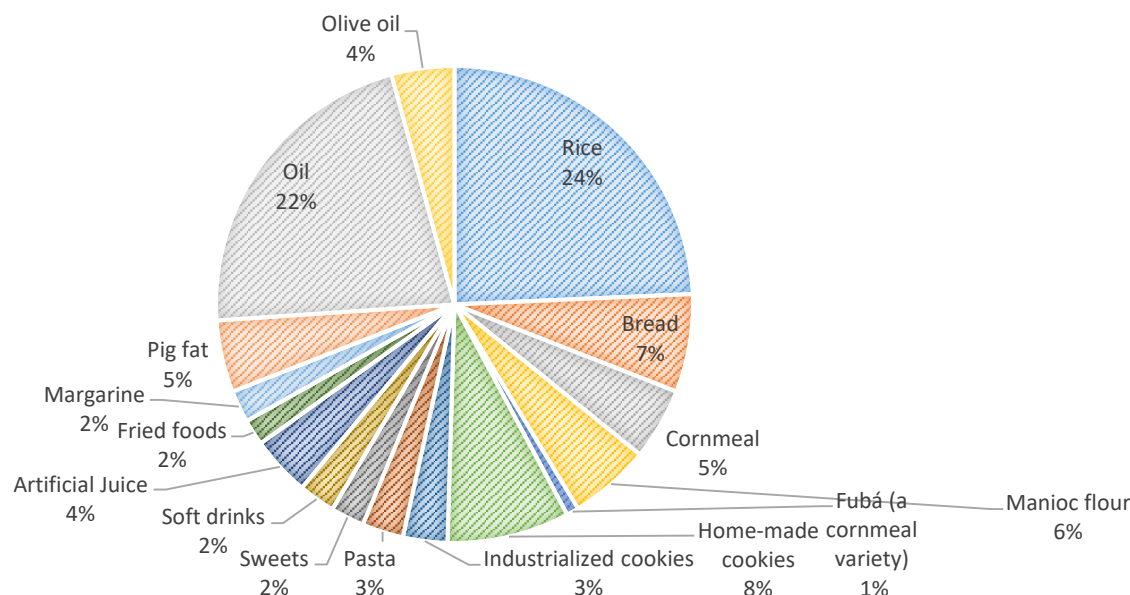


Image 1. Consumption of energetic foods among elders / Rio Paranaíba - MG, 2014.

Regarding the group of protein rich foods, beans were the most consumed, followed by beef, poultry and swine. Considering the group of foods that regulate the digestive tract, it was found that more than 85% of the elders usually consume fruits and vegetables, including leaves and boiled legumes. Regarding food intake, 76.3% of the evaluated elders reported not to have noted any diminution in their food intake

DISCUSSION

Many different variables can interfere in the food intake and, consequently, in the nutritional state of elderly individuals. Among these factors, some stand out, such as physiological changes common in the aging process, diseases and socioeconomic and family factors¹¹.

In this study, elders were found to consume many energetic foods, especially rice, bread and home-made cookies. Similar results were found in another research¹², which evaluated 1602 elders and found that more than 90% of them consumed rice, bread, starchy foods and pasta. An exacerbated consumption of highly sugary foods was also found, such as: artificial juices, soft drinks and candies, confirming the results presented by the Research of Family Budgets (POF) from 2008 to 2009¹³.

In the group of protein foods, the most consumed daily by the elders were beans and meats, reiterating the fact that the culturally common diet for lunch and dinner in Brazil, which include rice and beans, can be a good strategy to intervene in the food quality and intake of the meals usually eaten by people in this age group. This is also made clear by the POF 2008-2009¹³, proving that the elder population has been preserving this eating habit, which can be considered positive when it is compared to the younger age groups¹⁴.

Elders from both genders stated to consume great amounts of vegetables and fruits, demonstrating protective eating habits, since these foods are good sources of fiber, and protect against weight gain and obesity, as they act upon satiety, in providing a better glycemic response (reducing hypo- and hyperglycemia episodes), in addition to acting

upon cardiovascular disease risk factors. These findings corroborate those of an investigation which evaluated the eating habits of non-institutionalized elders in Londrina (PR) and found that 28.9% of participants consumed legumes¹⁵.

Regarding the group of foods that work in the regulation of the organism, these are consumed in great amounts by the elders. A similar study¹⁶, conducted with elders, found that fruits are more commonly consumed, but in a comparison of the total daily intake, its results were lower than the ones found in this study; in addition, the consumption was higher among elder women and individuals with higher educational levels.

An investigation conducted in Brazil⁴ suggests that the low consumption of fruits and vegetables can be related to low educational levels and low purchasing power, as well as to its unattractiveness, and to difficulties to acquire and prepare these foods.

Regarding the consumption of alcohol, it was low among the elders interviewed. 2.86% of the individuals (n=7) reported to consume this type of beverage. Among these individuals, five were men and two were women, showing that women consume less alcoholic beverages than men, a similar result to that found¹⁷ in a study with elders in Porto Alegre.

CONCLUSION

Eating habits give information about the cultural and social story of an individual, his life experiences, and correspond to procedures that go from the choice and preparation of the food up to its consumption.

The feeding behavior does not reflect only the search for satisfying physiological needs, but also that of psychological, social, and cultural ones. Knowing the eating habits of a certain population, especially that of elders, is important, since it allows one to elaborate strategies that diminish the incidence of some non-transmissible chronic diseases, such as arterial hypertension and diabetes mellitus, which are related to eating habits.

Other studies are needed to relate food consumption quality and other variables such

as sedentary behavior, biochemical standards, quantitative evaluation of the consumption of macro and micro-nutrients, and the consumption of medications, to the incidence and prevalence of chronic diseases in this population.

It is important to consider the limitations of this study, namely, that the evaluated sample only includes the food consumption of the elders who live in the researched region.

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CONTRIBUTIONS

Márlon Martins Moreira took part in the conception and delineation of the study. **Matheus Martins Moreira** took part in data collection. **Virgínia Souza Santos** collaborated in the analysis of the results. **Luan Augusto Alves Garcia** took part in the writing and critical review. **Álvaro da Silva Santos and Jair Sindra Virtuoso Júnior** collaborated in the critical review.

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