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### LEVEL OF KNOWLEDGE AND PERCEPTION OF ELDERLY PEOPLE IN THE COMMUNITY ABOUT THE VEGETARIAN DIET: AN EXPLORATORY STUDY

#### Helen de Souza Barros

Institution: "Instituto de Alimentação e Nutrição, Centro Multidisciplinar" UFRJ-Macaé

#### Renata Borba de Amorim Oliveira

Institution: "Instituto de Alimentação e Nutrição, Centro Multidisciplinar" UFRJ-Macaé



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Abstract: The human being can follow different types of eating patterns and in the current context, it is known that the vegetarian population is increasing every day in society. The way people eat is intrinsically related to health, cultural aspects, environment and life habits. For these reasons, the objective of the present study was to investigate in a population of elderly people their knowledge and perception related to a vegetarian diet. In general terms, the main question of the research is to understand the level of this knowledge and how they associate this diet with health and quality of life. This is an exploratory descriptive cross-sectional study with qualitative and quantitative methodology, applied through a questionnaire. 117 individuals participated, between 62 and 90 years old, where, 112 follow the omnivorous food pattern and 5 the ovo-lacto vegetarianism. The research found that there is a lack of knowledge on the part of this population related to vegetarianism, even by individuals who follow this diet, on the other hand, the interest of a large part of the population studied about this theme is notorious. Thus, the present work detected the need to offer knowledge to this population about this type of food and how it can be beneficial for health and a better quality of life if carried out with professional guidance, in addition to observing the lack of literature on the subject. vegetarianism associated with the health of the elderly. even by individuals who follow this diet, on the other hand, the interest of a large part of the population studied about this theme is notorious. Thus, the present work detected the need to offer knowledge to this population about this type of food and how it can be beneficial for health and a better quality of life if carried out with professional guidance, in addition to observing the lack of literature on the subject. vegetarianism associated with the health of the elderly.

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**Keywords**: Vegetarianism; elderly; knowledge; food; health; quality of life.

#### INTRODUCTION

The history of civilization and the use of the plant world in food are intertwined and the practice of vegetarianism has been evidenced in different cultures for millions of years. Its expansion in the current scenario has become an expressive and solid trend (AVP, 2013).

For better understanding, The Food Guide for Vegetarian Diets for Adults of the Brazilian Society (SVB, 2012), describes vegetarianism as the food practice that removes from the diet all types of meat of animal origin and its derivatives, with or without the use of dairy products and eggs.

In this context, the American Dietetic Association (ADA, 2002), already emphasized two decades ago that properly planned vegetarian diets are healthy and nutritionally adequate. Aspects related to this dietary pattern include foods rich in fiber, antioxidants, phytochemical compounds and a lower percentage of saturated fats (SLYWITCH, 2012).

The adoption of a vegetarian dietary pattern ensures several benefits to human health, such as a decrease in the concentration of serum lipids and prevention of chronic non-communicable diseases (NCDs), which include diabetes mellitus, obesity, cardiovascular diseases, hypertension and some types of cancer, enabling a longer life expectancy (SZETO et al., 2004; BRADBURY et al., 2014).

One of the main factors for attributing CNCDs is aging, thus a review of cohort studies carried out by Hajat and Stein (2018) attribute one or more chronic diseases to about 70% of the elderly in developed countries. Faced with this reality, it is valid to assume that the effect of the vegetarian dietary pattern can be favorable on health parameters and quality of life of individuals during the aging process, corroborating for it to occur in a healthy way.

Thus, the main objective of the work wasto evaluate the level of knowledge and perception of a population of elderly people in the community (participants of a municipal program) about vegetarianism, associated with health and quality of life.

#### METHODOLOGY

This is an exploratory descriptive cross-sectional study with qualitative and quantitative methodology with individuals aged 60 years or older who are part of a municipal program in the interior of Rio de Janeiro, RJ, Brazil.

Data were collected through a questionnaire that addressed clinical information (morbidities and medications used) and questions about the population's knowledge about the vegetarian diet and self-perception of health and quality of life.

Basic anthropometric data were collected [measurement of total body mass and height to calculate the Body Mass Index (BMI)]. BMI was calculated from the ratio between total body mass and height squared (BMI = body mass/height<sup>2</sup>). For the classification of BMI, the cutoff points for the elderly proposed by the Pan-American Health Organization (PAHO, 2002) were used: Underweight: BMI  $\leq 23$  kg/m<sup>2</sup>; Adequate Weight: BMI 23- 28 kg/ m<sup>2</sup>; Overweight: BMI >28-30 kg/m<sup>2</sup>; Obesity: BMI >30 kg/m<sup>2</sup>.

The qualitative data analysis was carried out following the steps of: pre-analysis, material exploration, data tabulation and treatment of results.

The work was submitted as an amendment to a previously approved project (CAAE registration number: 45743015.5.0000.5244), by Plataforma Brasil.

#### RESULTS

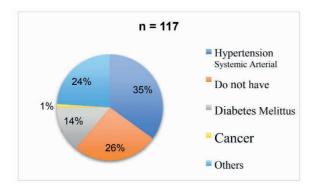
The research had the participation of 117 elderly people, of both genders (Table 1). Age ranged between 62 and 90 years, where 69% of these had some morbidity, the main ones being: Systemic Arterial Hypertension (SAH), Diabetes Mellitus, Obesity and Cancer (graph 1).

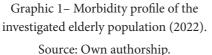
Regarding the type of diet they follow, only 4% have an ovo-lacto-vegetarian diet (graph 2), only 2% have some associated comorbidity, the other 2% do not. The BMI classification found that 37% of the participants are adequate, 30% and 19% are obese and overweight respectively, and 14% are underweight.

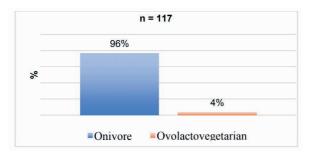
Gender	value n	average age	Standard deviation
Masculine	43	70.68	5.64
Feminine	74	71.27	6.06
Total	117	70.68	5.64

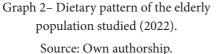
Table 1– Mean age and standard deviation of elderly people in the survey (2022).

Source: Own authorship.









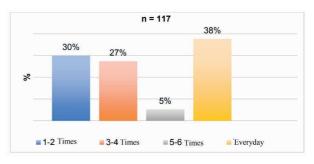
ASSESSMENT OF KNOWLEDGE AND PERCEPTION OF VEGETARIANISM

As for knowledge and perception about the vegetarian diet, graph 3 shows that most of the studied population (38%) consumes products of animal origin every day. Graph 4 illustrates that most of the population does not believe they have a high level of knowledge about vegetarian food.

Graph 5 found that only 17% of the population had already evaluated the possibility of following this dietary pattern and when questioning the reasons why there would be a probability of becoming vegetarian or not, the most cited categories were reasons for health benefits, cultural issues, environment environment and lack of knowledge on the subject.

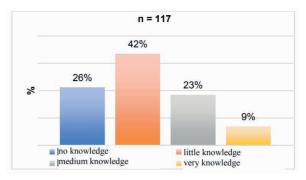
However, when asked "If they believe that the decrease in the consumption of animal products brings benefits to health and quality of life", 71% answered yes (graph 6), associated with this, the largest part of the referred population answered that if If they knew that a vegetarian dietary pattern brings health benefits, they would be able to follow this dietary pattern (graph 7).

In this context, they were asked if they feel discomfort when consuming foods of animal origin. Of those who answered "yes" and "to thetimes", all reported feeling some kind of discomfort when eating red meat or any type of dairy product (graph 8).

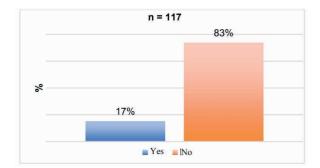


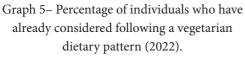
Graph 3– Frequency of consumption of animal products that the elderly have during the week (2022). xx

Source: Own authorship.

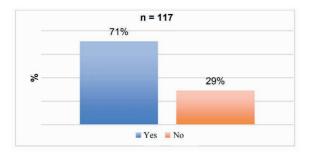


Graph 4– Level of self-reported knowledge of the Senior Guard of Macaé about vegetarianism (2022). Source: Own authorship.

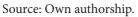


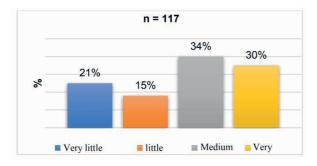


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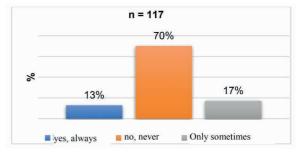
Graph 6– Perception of the elderly on the reduction of consumption of animal products as a beneficial way for health (2022).





Graph 7– Possibility of following a vegetarian diet in view of its benefits (2022).

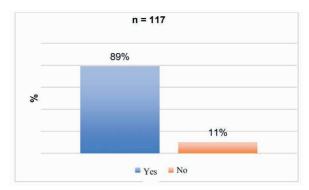
Source: Own authorship.



Graph 8– Investigation of discomfort when eating animal products (2022). Source: Own authorship.

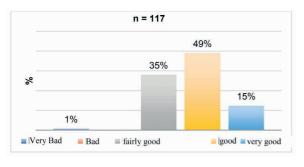
## HEALTH AND QUALITY OF LIFE OF THE ELDERLY

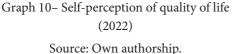
This category reveals the perception that the population has about the relationship between food and comorbidities. Of these, 89% said they believe there is a link between these two factors (chart 9), and if they are satisfied with their health, 38% answered that they are satisfied, 36% reasonably satisfied, 18% very satisfied and 8% dissatisfied, in relation to quality. of life, satisfaction is perceptible in the general context (chart 10).



Graph 9– Identification of the understanding of the role of food in the occurrence (or not) of diseases (2022).

Source: Own authorship.





#### DISCUSSION

The present study sought to identify the level of knowledge and perceptions about vegetarian food among a population of elderly people.

Despite little statistical data on the frequency of this food consumption pattern, we realize that more and more people are opting for this practice today, as well as the recent expansion of local surveys. The progression of these studies and their contribution to nutritional epidemiology will certainly contribute to a better understanding of the connections between diet, disease and quality of life in the future.

The Oxford Epic (Oxford Cohort on European Prospective Cancer and Nutrition Research) carried out a cross-sectional food analysis study comparing the BMI of four groups with different diets (meat, fish, vegetarian and vegan consumers). It was observed that vegetarians and especially vegans had a lower Body Mass Index (BMI) when compared to meat consumers (The BMI of vegetarian individuals was 2 to 4 points lower than that of non-vegetarians).

Likewise, the data now presented are similar to the North American cohort study Adventist Health Study - 2 (AHS-2) which investigates the relationship of vegetarian dietary patterns with health risk and disease growth. The study has 6,194,000 participants, 48% non-vegetarians and 28% lacto-ovo vegetarians with a mean age of 60 years.

Vegetarians were found to be 55% less likely to develop hypertension, 49% less likely to develop type 2 diabetes. the chances of developing cancer by 8%.

Comparing the aforementioned studies with the present study, the significantly lower mean BMI observed in lacto-ovo vegetarians may be an important factor in reducing disease risks. Of the 4% who have an ovolactovegetarian diet, only 1% are obese, while the others are adequate, and 2% of these have an associated disease. Of participants following the omnivore diet, only 28% reported having no associated illness. Initial results demonstrate essential links between vegetarian dietary patterns and improved health (ORLICH et al., 2013; FRASER et al., 2015).

According to Bandeira et al (2006), nutritional disorders are common among the elderly, and the nutritional status in these cases characterizes both a risk factor and a dysfunction marker. However, in the elderly, nutritional status is the portrait of dietary practices established in the past and can be the result of several long-term problems.

Based on the assumption above, the research, even being limited to a small group of participants and not having collected data on the time that these participants follow an ovo-lacto-vegetarian dietary pattern, is an exploratory study that highlights the need for further investigation of the effects of this type. related to the health of the elderly person in the short and medium term.

Through the questionnaire, it was possible to observe that they reflect little on modifying the dietary pattern they follow, and when proposed to justify the answer, some associate a vegetarian diet with health and quality of life, others believe that meat consumption is substantial for a healthy lifestyle. good nutrition, and another portion claims lack of knowledge. Most of the studied population believes that a lower consumption of animal products brings benefits to health and quality of life. This result is also based onIt is in the reports of some of the participants for the perception of each one about their body, "because I can't go to the bathroom when I eat meat"; "because the animals are raised with hormones" and "I feel pain when I eat red meat".

Only 30% of the participants said there was a great possibility of becoming vegetarian if they knew about its benefits, as well as it was possible to perceive that in their view, that the excess of food of animal origin can be harmful.

It was possible to observe that most people believe that food can influence the onset of diseases. This understanding expresses a concern to understand what is beneficial for health, as we can see in the following speech, "I believe it influences yes, because mine was, because of food I have diabetes".

Considering that the conceptions of food and disease are mixed with the individual perception of one's own body, with the appearance of illnesses and the singularities that aging entails, we understand that knowledge and food education are fundamental in this process, representing one of the important steps for have a healthy aging.

When analyzing the responses obtained, 26% of people were dissatisfied or very dissatisfied with their health. In Brazil, using the database of the Brazilian Institute of Geography and Statistics (IBGE, 2019), 159.1 million people self-rated their health as good or very good. Within this reality, it was noticed mainly in populations of more advanced ages, a smaller percentage of people who evaluated their health as good or very good, being 41%.

The answers about quality of life, when the elderly were questioned, had a mostly positive connotation. When jointly analyzing the variable in relation to satisfaction with health and quality of life, it is observed that the participants relate the health condition to the appearance of diseases and the quality of life in a broader way. It is relevant to understand the perception and reality of this physiologically more vulnerable population, as it enables reflections and actions aimed at modifying determinants and conditions of the illness process associated with aging, which can be avoided or minimized by adequate nutrition.

Freire (1987) already pointed out that understanding the population's perception of their reality can contribute far beyond knowledge and education, even contributing to social interaction and critical reflection by students, as observed in this research regarding dietary patterns.

#### CONCLUSION

Aging is an extremely significant life process that must ideally be experienced with autonomy, recognition of rights, safety, wellbeing and health. In this context, dietary habits are worth mentioning, since they are modifiable risk factors and are directly related to quality of life for healthy or sick people.

From the results found, it was observed that most elderly people have the same level of perception and knowledge about the vegetarian food pattern. There is a gap in relation to this theme related to the elderly population, which has been observed even by those who follow this type of diet. It is noted that despite this lack of specific knowledge on the subject, in general they associate the reduction of meat and increased consumption of plant foods as something beneficial for health.

It is evident that most individuals are interested in going deeper into the subject, even as a probable intention to change, since there is a concern to improve their health and quality of life, as verified in the analysis of the questionnaires and reports during the activities carried out.

Finally, the results of this research can be equally important in the sense of instigating, stimulating researchers and students to carry out further investigations on the aforementioned theme that may contribute to a better understanding of the perception that the elderly population has about the vegetarian diet, in addition to allowing comparison of results and interventions with a positive impact at the individual and public policy levels.

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