Analysis of the worsening nutritional quality of the Brazilian population

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ABSTRACT

In this article, the objective is to promote a reflection on the relationship between eating habits and processed foods. Based on the reading of texts, it is intended to bring to light pertinent information about the dietary influence harmful to public health, to know the process of identification of components present in industrialized foods, thus evidencing the harms of their exaggerated intake for our health. Factors such as chronic inflammation at the cellular level, often induced by processed foods, low in nutrients and high in refined carbohydrates and trans fats, play a critical role in human health. The consumption of ultra-processed foods is responsible for approximately 57,000 premature deaths of people between 30 and 69 years of age per year in Brazil. In Brazil, in 2022, the national average showed that 31.2% of adolescents were overweight, almost double the global average (18.2%).

Keywords: Food, Health, Trans Fats.

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INTRODUCTION

In the 70s, before the food pyramid gained popularity, the United States Department of Agriculture was looking for a new food guide to present to the population, for this they hired several specialists, however, they were not aligned with the interests of the large food industries, since they presented a genuine commitment to human nutrition by presenting a food guide that emphasized natural foods such as fresh fruits and vegetables.[1,2]

In addition, they also encouraged the consumption of protein sources such as meat and eggs, and instead of rejecting natural fats, they valued sources such as cold-pressed fats, especially olive oil, imposing limits on the consumption of sugars and refined grains such as industrialized breads and cookies, completely excluding sweets and unhealthy foods.[2]

The food pyramid has never focused on population health, as it has been sold to the biggest stakeholder: the grain industry. This pyramid was officially introduced to the general public in 1980 and people just followed with a lot of confidence. The results were alarming, as obesity skyrocketed and coincides with the beginning of dietary guidelines and the adoption of the food pyramid.[3,4]

Following her guidelines, a 15-year-old teenager, for example, could have a daily menu with a bowl of cereal with skim milk and a glass of concentrated orange juice for breakfast; sugar-laden biscuit as a morning snack, chips and a soft drink for lunch, pudding as an afternoon snack, *Nuggets* chicken and biscuit for dinner and a portion of trans fat ice cream for dessert.[2]

As late as the 1970s, heart disease became an epidemic in the United States, and as middle-aged men began to develop heart problems at rates never seen before; The once-rare cancer was also on the rise.[5] Instead of associating these diseases with the increase in the consumption of ultra-processed foods, the food industry conveyed the factoid that meat and saturated fat were metabolized into deadly plaques that lodged in the arteries with the viscosity of a "dense porridge".[5]

Factors such as chronic inflammation at the cellular level often induced by processed foods, low in nutrients and high in refined carbohydrates and trans fats, play a critical role for human health, as this inflammation can lead to insulin resistance and high triglyceride levels.[6]

In addition, trans fats and hydrogenated fats contribute to the oxidation of LDL, making it much more heterogeneous than the amount of LDL, its quality, especially when oxidized, becomes a risk factor. It has also been found that plaques contain a remarkable amount of calcium, however it is not the calcium itself that is the problem, but imbalance caused when there is a deficiency of other essential nutrients such as magnesium, vitamins D and K2 that regulate their metabolism.[7]

Currently, large manufacturers promote products rich in refined flours, sugars and vegetable oils as healthy, encouraging their consumption indiscriminately, defying science, the Unified Health System (SUS) and confusing consumers.[8]

SCENARIO IN BRAZIL

The consumption of ultra-processed foods is responsible for approximately 57,000 premature deaths of people between the ages of 30 and 69 per year in Brazil, according to a study conducted by researchers from the University of São Paulo (USP), the Oswaldo Cruz Foundation (Fiocruz), the Federal University of São Paulo (Unifesp) and the University of Santiago de Chile and published in the American Journal of Preventive Medicine. [9]

Also according to the research, if the consumption of this type of product was reduced to what it was a decade ago, 21% of these deaths would be avoided. In addition, a 10% to 50% reduction in the consumption of ultra-processed foods could prevent 5,900 to 29,300 deaths annually.[9] Ultra-processed foods can be defined as:

> Ultra-processed foods are not foods at all, but rather formulations of food-derived substances, often chemically modified and exclusively for industrial use, containing little or no whole food and typically added colorings, flavorings, emulsifiers, and other cosmetic additives to make them palatable or hyperpalatable.[10]

Some examples of this type of product are soft drinks and other artificially flavored beverages, filled cookies, snack foods, cereal bars, instant noodles, packet soups, ice cream, and ready-to-eat frozen meals.[11]

CHILDHOOD OBESITY IN BRAZIL

In Brazil, in 2022, the national average showed that 31.2% of adolescents were overweight, almost double the global average (18.2%). "We believe that the high numbers of childhood obesity in Brazil owe a lot to the lack of regulation of ultra-processed foods in the country.[12]

According to a survey conducted by the Unified Health System[2] (SUS) in 2022, 1/3 of children, about 1.4 million are overweight or obese. Table 1 shows the results of the survey in regional terms in Brazil.

[2]Available in https://www.gov.br/saude/pt-br/assuntos/noticias/2022/outubro/sus-diagnosticou-sobrepeso-e-obesidade-em-quase-1-4-milhao-de-adolescentes

Table 1 – Childhood obesity by region

REGION	PERCENTAGE (%)
South	13,13
Southeast	11,48
Midwest	10,91
Northeast	8,25
North	7,4

Source: Unified Health System (2022)

As seen, it is necessary to think about strategies to face this Brazilian public health problem. According to research, diseases such as hypertension, diabetes and even some types of cancer are being diagnosed earlier among these children and young people.

POOR DIET AND DEVELOPMENT OF CHRONIC NON-COMMUNICABLE DISEASES (NCDS) IN BRAZIL

Chronic Non-Communicable Diseases (NCDs) are the leading causes of mortality globally. The most common diseases of the population are diseases of the circulatory system, malignant neoplasms, diabetes mellitus and chronic respiratory diseases. According to the Ministry of Health, approximately 57.4 million people in Brazil have at least one NCD. In addition to poor diet, other factors can favor its development, such as: genetics, gender, age, sedentary lifestyle, obesity, smoking and alcoholism.[13]

In Brazil, these diseases represent the leading cause of death. In 2016, they accounted for 74% of the total, with emphasis on cardiovascular diseases (28%), various types of cancer (18%), respiratory diseases (6%) and diabetes (5%). About 40% of the Brazilian adult population suffers from at least one NCD, according to data from the 2013 PNS (National Health Survey).[14]

NCDs are characterized by having long-term development and multiple causes. Among the risk factors for its appearance are smoking, sedentary lifestyle, unhealthy diet and overweight.[14]

Unhealthy eating is one of the most important factors for the emergence of these diseases. In addition to contributing decisively to overweight and obesity, which are also risk factors for some diseases, poor diet is related to hypertension, cardiovascular diseases, diabetes and some types of cancer.[14]

INCREASE IN CONSUMPTION OF ULTRA-PROCESSED FOODS IN BRAZIL

According to Louzada[15], in the last 10 years, the consumption of ultra-processed foods by Brazilians had an average increase of 5.5%, which was classified by her as "significant". According to the researcher, the data "corroborates other studies that have evaluated purchases by Brazilian families since the 1980s, showing that the increase has been occurring for decades." The study evaluated the sociodemographic factors associated with the consumption of this type of food and the temporal evolution of consumption in Brazil between 2008 and 2018.[15]

> "The increase in its consumption is due to a combination of factors, namely, mainly, the reduction of relative prices, the expansion of supply in the most diverse shopping places, mainly due to the expansion of retail chains, displacing the population from the most traditional food sales places, such as grocery stores and fairs, and the growing penetration of transnational industries in more remote areas of the country"[15]

The study found that women, adolescents, white people, those with higher income and education, and residents of urban areas and the South and Southeast regions of the country are the ones who consume the most ultra-processed foods. Another data showed that about 20% of the calories consumed by Brazilians come from this type of food.[15]

However, in the last 10 years, the most significant increases in consumption were seen precisely among those who had the least access: black and indigenous people, residents of rural areas and the North and Northeast regions, as well as population groups with lower levels of education and income. The explanation for this growth is the changes in the globalized food system, characterized mainly by the increasing penetration of the processed food industry in Brazil.[15]

CONCLUSION

The problem is that the food industry often influences scientific narratives, as it is not uncommon for research in the field of nutrition to be sponsored by these giants of the food sector. With more access to information, it can be seen that the manipulations of the past continue in the present. Therefore, as consumers and citizens we have the responsibility and power to research and question history shows us that we cannot always blindly trust the prevailing narratives and it is essential that we are always informed, seeking the truth beyond the media headlines, because our health and well-being are at stake and deserve our attention.

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