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CHAPTER 28

CONSUMPTION OF ULTRA-PROCESSED FOODS IN CHILDHOOD LITERATURE REVIEW

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ABSTRACT

The intake of ultra-processed foods has been increasing a lot with the new generations. The objective of this article is to understand the consequences of ultra-processed foods in childhood. The literature review of the present study demonstrated that this type of food is linked to obesity, cardiovascular diseases, diabetes, hypertension, stroke, cancer, dyslipidemia, visceral adiposity, hypertriglyceridemia, nutrient deficiency, depression, and dementia. They also contribute to a low fiber intake by raising caloric intake. In addition, habits consolidated in childhood tend to last throughout life, and may lead to increased consumption throughout the individual's existence, leading to greater exposure to the risks associated with this type of food. Through the analysis of preferred articles from the last five years, we concluded that the main causes of high consumption of ultra-processed foods are: advertising, family habits, and socioeconomic context. The instruction of the caregiver is a very striking aspect, as it can have an impact due to less or more information about healthy foods, as well as reduce or increase their income, contributing to the acquisition of minimally processed foods. These are important public policies that can directly impact changing this scenario, contributing to a general decrease in health problems.

Keywords: Ultra-processed foods; Child health; Nutrition; Obesity; Public Policy.

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INTRODUCTION

Ultra-processed foods are those produced industrially through various techniques and processing steps. Ingredients are added to them to improve flavor or shelf life, many of which have poor nutritional quality. Some examples of ultra-processed foods are: soft drinks, ice cream, chocolates, sweets in general, gelatins, breakfast cereals, and snacks (Brasil, 2021).

According to Raymond (2021), children's eating patterns have been changing over the years, influenced by a series of factors such as the family environment, social trends, and the media. National surveys on the food intake of children and adolescents show a precarious nutritional reality, not meeting the recommendations for food groups. An increase in the consumption of foods with low amounts of nutrients in the children's diet has been observed, replacing foods that are essential for health.

The growing consumption of ultra-processed foods in the diet of children and adolescents is a matter of concern. In Brazil, for example, the largest amount of consumption of ultra-processed foods is among young people. Among adolescents, the consumption of ultra-processed foods totals 27% of the calories in the diet, while in adults 20% and among the elderly 15% (IBGE, 2020).

Considering these aspects, the objective of this study is to analyze the impact of the consumption of ultra-processed foods on children's health, focusing on the nutritional and metabolic consequences associated with their consumption. In addition, seek to understand the factors that influence this consumption and obtain information about the government's actions in this scenario.

METHODOLOGY

The methodology of choice for the following research was a bibliographic review with an exploratory approach.

For Marconi and Lakatos (2019), bibliographic reviews are intended to put the researcher in direct contact with everything that has been written, said or filmed on the subject. Not being a mere repetition of the subject, but providing analysis of the theme from another perspective or approach, to reach new conclusions.

After choosing the theme and preliminary research, a targeted research was carried out through a bibliographic survey, using the following databases: LILACS (Latin American and Caribbean Literature in Health Sciences), MEDLINE (Medical Literature Analysis and Retrieval System Online), SCIELO (Scientific Electronic Library Online), PUBMED

(International Literature in Health Sciences). Thus, the characteristics of the research were defined to then discuss, interpret and present the results achieved.

The guiding question was: What is the impact on health caused by the consumption of ultra-processed foods during childhood?

For a bibliographic review of the theme, searches were carried out in printed bibliographies and digitized articles. The Anatomical Laboratory of the University of Contestado (UNC) was also used to complement and analyze "in loco" its structures.

The articles were collected until November 2024, preferably up to 5 years old, surveying works specifically related to the proposed theme and resulted in 11 articles.

In the researched articles, a pattern was noticed in the problem addressed, that is, the authors also had the same doubt as in the present study with the object of the research.

Understanding this subject is of great importance for physicians and professionals working in public health.

RESULTS AND DISCUSSION

Scientific evidence on the effects of ultra-processed foods on health is numerous and constantly increasing. These foods per adult are associated with a higher risk of obesity, cardiovascular disease, diabetes, and other chronic conditions, as well as being linked to problems such as depression and dementia (Suksatan et al., 2022).

In addition, the consumption of ultra-processed foods is associated with increased BMI, and a higher risk of developing diseases such as obesity, cardiovascular diseases, hypertension, stroke, and various types of cancer (Srour et al., 2019).

Cruz et al. (2021) demonstrated that there is a direct relationship between the consumption of ultra-processed foods and fiber intake below that recommended by the World Health Organization. The study indicates that ultra-processed foods, such as cookies, cakes, ready-to-eat meals, frozen foods, instant foods and soft drinks, are among the groups that most contribute to high caloric intake.

It is important to note that the intake of sugary drinks, in addition to promoting energy imbalance, is also linked to a higher risk of dyslipidemia through the accumulation of ectopic fat, visceral adiposity and hypertriglyceridemia, the regular consumption of ultra-processed foods is associated with an increase in blood lipids, including total cholesterol, LDL-c and triglycerides, in addition to a reduction in HDL-c. These factors are directly related to the risk of developing chronic non-communicable diseases (Beserra et al., 2020).

As with adults, in children the intake of ultra-processed foods is also linked to metabolic and nutritional problems, including obesity, hypertension and nutrient

deficiencies, due to the high levels of sugars, sodium and fats in these products. Practicality and advertising aimed at children are some of the inspires the addition of these foods to children's eating routine (Nunes; JacominI, 2021).

In addition, these products, rich in sugars, fats and additives, are usually introduced early in children's diets due to the influence of family and socioeconomic factors. Therefore, the need for public policies that encourage healthier eating and limit the advertising of these products is highlighted, with the aim of protecting children's health and promoting good eating habits from an early age (Silva et al., 2022).

According to this, eating habits formed in childhood tend to last into adulthood, which prolongs exposure to the risks associated with the consumption of ultra-processed foods (Beserra et al., 2020).

A survey conducted by the Brazilian Institute of Geography and Statistics (IBGE) in 2017-2018, in the age group of 10 to 18 years old, the consumption of ultra-processed foods represents 26.7% of the calories ingested in the diet. This percentage decreases to 19.5% in the age group of 19 to 59 years and reaches 15.1% among those over 59 years of age (IBGE, 2020).

According to a study carried out in the municipality of Palhoça, 31.2% of children consume artificial juices daily and 49.9% of children consume soft drinks one to two times a week. And he highlighted that the consumption of these sweetened beverages is related to the emergence of childhood obesity (Silva et al., 2023).

Even more, the high consumption of ultra-processed foods among children under 24 months of age in Santa Catarina is a growing concern, a period when children should not even have contact with these types of foods. Although many of these children have weight and height within the expected standards for their age, cases of malnutrition and overweight are also observed. This scenario highlights the urgent need for policies that encourage healthy eating from childhood, with the aim of preventing nutritional deficiencies and promoting adequate and sustainable development for child health in the long term (Damazio et al., 2024).

Another factor to be highlighted in ultra-processed foods is food additives, they are products placed intentionally, such as dyes and preservatives. It should be noted that the toxicological studies carried out are mostly in animal models, hence the difficulty in establishing safety limits for children's development (Kraemer et al., 2022).

There are several factors that influence the consumption of ultra-processed foods in childhood, one of them being the education of the mother or caregiver. Children whose mothers or caregivers had 8-10 years of schooling had a higher consumption of ultra-

processed foods (84.8%), compared to those whose mothers had 12 years or more of schooling (73.4%). In short, an association of higher consumption due to less access to information on healthy foods and or also limitations of resources for purchasing minimally processed foods (Lacerda et al., 2023).

Therefore, it is important to develop public policies with actions that encourage healthier eating, in addition to facilitating access to minimally processed and fresh foods. An example is the National School Feeding Program (PNAE), which is associated with a lower consumption of ultra-processed foods by children (Noll et al., 2019).

CONCLUSION

This study highlights the relationship between the increasing consumption of ultra-processed foods and the negative impacts on children's health, with emphasis on the nutritional and metabolic consequences associated with this eating practice. The results point to an increase in conditions such as obesity, diabetes, hypertension and nutritional deficiencies, due to the high intake of sugars, fats and sodium present in these products. In summary, the influence of advertising, the family environment and the socioeconomic context were identified as significant determinants of the consumption pattern of these foods among children.

With regard to government actions, it was observed that, although there are programs such as the PNAE, which encourages healthy eating, public policies are still insufficient to effectively combat the high consumption of ultra-processed foods. The need to expand these actions and implement measures that restrict advertising aimed at children and facilitate access to healthier foods becomes evident.

Therefore, the study reinforces the urgency of more robust public policies and greater awareness of the risks to children's health, in order to promote a balanced and sustainable diet for future generations.

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