

Conflicts of interest in food industry strategies to increase consumption of ultra-processed foods and the effects on the health of the Brazilian population

Conflitos de interesses nas estratégias da indústria alimentícia para aumento do consumo de alimentos ultraprocessados e os efeitos sobre a saúde da população brasileira

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Abstract

In 2010, noncommunicable chronic diseases accounted for over 18 million deaths worldwide; in 2014, the prevalence of overweight represented 2.1 billion. In Brazil, overweight affects 51% of the population. Ultra-processed foods, such as sandwich cookies, pack snacks, soft drinks and fast food, contribute to this epidemic by presenting combinations of ingredients that make them highly palatable (sugar, salt, fat and chemical additives) and damage mechanisms of appetite control. The main factors that contributed to the increase in the consumption of these foods were the strengthening of the economy, the increase in purchasing power, marketing campaigns, as well as the comfort, convenience and lower cost. The food industry has used opinion formation strategies, such as exposure in the media with massive campaigns, to promote these products and initiatives focused on health professionals through sponsorship of scientific events and non-governmental organizations. Conflicts of interest in scientific production are increasing and analysis of studies funded by industry has shown that the outcomes are favorable to the study sponsor. This paper aimed to discuss the influence of the food industry on the increased consumption of ultra-processed food and the effects on the health of the Brazilian population. Thus, there may be a contribution to the process of transformation of practices and principles, as well as to an extension of this discussion with transparency and equity, in order to maintain the interest of the Brazilian population in the first place.

Keywords: Public Policies. Obesity. Food Consumption. Healthy Eating.

Resumo

As doenças crônicas não transmissíveis, em 2010, foram responsáveis por mais de 18 milhões de mortes no mundo; em 2014, a prevalência do excesso de peso representou 2,1 bilhões. No Brasil, o excesso de peso afeta 51% da população. Existem muitas evidências de que os alimentos ultraprocessados (biscoitos recheados, salgadinhos de pacote, refrigerantes e *fast food*) colaboram para essa epidemia por apresentarem combinações de ingredientes que os tornam altamente palatáveis (açúcar, sal, gordura e aditivos químicos) e que prejudicam os mecanismos de controle do apetite. Os principais fatores que contribuíram para o aumento no consumo desses alimentos foram o fortalecimento da economia, elevação do poder de compra, campanhas de *marketing*, bem como comodidade, conveniência e seu menor custo. A indústria de alimentos tem utilizado estratégias de formação de opinião, como a exposição no espaço midiático com campanhas maciças para a promoção desses produtos e ações com foco em profissionais da saúde por meio do patrocínio de eventos científicos e de organizações não governamentais. Os conflitos de interesse na produção científica são crescentes e a análise de estudos financiados pela indústria tem mostrado que os desfechos são muito frequentemente favoráveis ao patrocinador do estudo. Este ensaio tem o objetivo de discutir a influência da indústria alimentícia no aumento do consumo de alimentos ultraprocessados e o efeito sobre a saúde da população brasileira. Pretende-se contribuir para o processo de transformação de práticas e princípios, bem como para uma ampliação dessa discussão com transparência e equidade, a fim de manter o interesse da população brasileira em primeiro lugar.

Palavras-chave: Políticas Públicas. Obesidade. Consumo de Alimentos. Alimentação Saudável.

Introduction

Contemporary societies are facing an epidemiological picture characterized by high prevalence of Chronic Noncommunicable Diseases (NCDs). In 2010, diseases such as hypertension, obesity, diabetes and dyslipidemias were responsible for more than 18 million deaths worldwide.¹ The incidence of obesity was 3.4 million in 2010, rising to 2.1 billion in 2014, in adults.² In children and adolescents, in developing countries, there was a significant increase in the prevalence of overweight in this period (from 8.1 to 13.4%); in developed countries, this prevalence increased from 22.6 to 23.8%.³

In Brazil, in 2007, NCDs were responsible for 72% of deaths;⁴ the prevalence for overweight in adults was 50.1%, and for obesity, 12.4%; in children, 33.5% and 14.3%; and in adolescents, 20.5% and 4.9%, respectively.⁵ In 2008, the prevalence of NCDs was 31.3%, including all age groups, with hypertension accounting for 13.97%, affecting 57.15% of adults between the ages of 70 and 79; heart disease, 3.97% and diabetes, 3.59%, with a higher prevalence after 50 years of age (about 8% to 25%), and cancer, 0.56%.⁶ The Brazilian public system invested about US\$ 270 million in 2011 with the care of obesity and its comorbidities.⁷ Smoking, excessive alcohol consumption, physical inactivity and inadequate eating habits are the main risk factors for the development of NCDs.⁸

There is much evidence that the consumption of ultra-processed food products has an impact on increasing the prevalence of NCDs.⁹⁻¹¹ Foods like stuffed cookies, packaged snack foods, soft drinks and *fast food*, which are classified as ultra-processed,¹¹ are part of the food patterns related to this epidemic^{1,12} in view of the main ingredients used for their production (sugar, salt, fat and chemical additives). These components are low cost, favoring their production but leading to changes in the mechanisms of appetite control, besides being used in highly palatable products,¹³ which, in the majority, have low nutritional quality. A recent report by the World Health Organization (2015) warns that often these food products are presented to the population as healthy options.¹² Thus, this paper aimed to discuss the influence of the food industry on the increase of consumption of ultra-processed foods and the effect on the health of the Brazilian population.

The role of economic policies and marketing strategies on increasing consumption of ultra-processed foods

An important reason for the increase in the acquisition, distribution and supply of these products are the economic policies that favor the flow of international capital, the transnational entry into internal markets and the deregulation of the market since 1980. There is a positive correlation between market deregulation and increased sales of ultra-processed products ($R^2 = 0.48$, $p < 0.001$).¹² In the United Kingdom, Canada and the United States, the acquisition of

ultra-processed food in the last two decades accounted for 60% of the total energy consumed; in Brazil, this consumption is at 28%.¹³ Sales in this category increased by 43.7% from 2000 to 2013, accounting for 22.3% of total sales in North America (United States and Canada) and 16.3% in Latin America. In Brazil, consumption of beverages and ultra-processed foods in the year 2000 was 86 kg *per capita*, increasing to 112.3 kg *per capita* in 2013, presenting a growth of 2.1% per year.

The marketing of these foods is made by large economic groups that monopolize the market. The main factors that contributed to the increase in the consumption of these foods were the strengthening of the economy, the increase of the purchasing power, marketing campaigns, as well as convenience and lower cost. Massive and aggressive *marketing* campaigns also contribute to the increase in the acquisition of ready-to-eat ultra-processed foods, from the creation of consumer needs, lack of time dedicated to food preparation, practicality and convenience brought by these products.¹ Motivations of choice associated with subject subjectivity, equally influenced by these mechanisms, but also due to historical and cultural dimensions, are not the focus of this essay.

The five main actors that have a major impact on this scenario have been identified: the large transnational food industries, health professionals, civil society associations and entities, public managers and the media. Another aspect that led to the increase in the acquisition of ultra-processed foods was the industry's strategy to establish relationships with these actors and increase their influence, through the financing of academic and governmental activities, among others, through public-private partnerships and their influence in the increase of the acquisition of ultra-processed foods.¹⁴

Is the ultra-processed food and beverage industry an active part in promoting healthy eating?

In publication of 2005, Verduin et al.,¹⁵ recognized employees of a food industry called ConAgra Foods Inc., mention that the food industry could contribute to the nutritional status of the population by conducting direct actions with consumers, in support of healthy food choices obtained through clarity and nutritional information contained in the labels, in the participation of food and nutrition education in schools to raise awareness, and offering products that meet consumer expectations in taste, quality and price. However, Ludwig & Nestle, in 2008,¹⁶ present some indicative examples of contradictions in the actions carried out by the ultra-processed food industry:

- McDonald's uses trans-fat in its preparations, as well as selling unhealthy foods to children associated to toys and games;
- Kraft sells unhealthy products to children, such as cookies, ketchup, mustard, mayonnaise, chocolates, candies, chewing gum, among others;

- The Center for Consumer Freedom (*CCF*), which would be a direct industry channel with the consumer, used by Americans, is funded by companies like Coca-Cola, Cargill, Tyson Foods and Wendy;
- Sponsored events that promote fun, body movement and games with children and their families to encourage healthy living are actions that contribute to diverting the consumer's attention to the nutritional quality of the products themselves.
- These authors also claim that in a market-oriented economy, industry tends to act in the interest of profit maximization. Therefore, they believe that actions that contradict their business model may imply less growth.¹⁶

According to Yatch et al.,¹⁷ members of Pepsico, in an article published in 2010, in the same way as Verduin et al.,¹⁵ reported on industry initiatives that they said could help combat hunger and malnutrition:

- Investment in agriculture, especially smallholder farmers, through the provision of higher quality seed;
- Provision of microcredit to farmers - with the aim of improving the accessibility to fertilizers and the efficiency of irrigation systems;
- Assistance in the expansion of basic resources (distribution and quality control) of corporations;
- Greater support to the fortification of routinely consumed foods;
- Increase in the portfolio of food for complementary food directed to malnutrition;
- Creation of innovative social business models to combat malnutrition and obesity (sustainable business);
- Investment in the development of nutrition science, especially in developing countries;
- Reformulation of foods said to be nutritious because they are of low energy value and of low cost.

However, in the following year (2011), Hawkes & Buse¹⁸ raised serious questions about the effectiveness of public-private partnerships or the contribution of the ultra-processed food industry to healthy food promotion activities. According to these authors, for public-private partnerships with the food industry to be beneficial to society, the public interest must come first. More recently, in 2013, Moodie et al.,¹ and a publication of the World Health Organization, in 2015,¹² have stated that there is no evidence to support the effectiveness or security of the public-private partnership with the food industry.

The difficult trajectory of the regulation of ultra-processed foods' advertising in Brazil

Television media has a negative influence on food preferences, especially on the most vulnerable audience, such as children.^{14,16} In the development of *marketing* campaigns, sales strategies are based on techniques that incorporate the latest behavioral knowledge according to psychoanalysis. Therefore, food *marketing* and advertising are able to exploit beliefs, desires and illusions, undermining rational decisions and self-control.¹²

The regulatory role of the State is to establish safe standards for food and nutrition, a ban on food marketing for children, and the regulation of food advertising. In many countries, regulation is active, either prohibiting the advertising of products considered unhealthy, restricting the time and place of its placement, or completely prohibiting any advertising aimed at children.^{14,15} Norway and Switzerland, for example, prohibit television advertising aimed at children less than 12 years of age. Likewise, Australia also restricts the quantity and frequency of advertising during children's programming; while Austria and Belgium ban advertising before and after children's programs. Finally, Italy has a self-regulatory code.¹⁹ Even though, in Brazil, the Consumer Defense Code²⁰ affirms that abusive advertising is characterized when it uses the child's "lack of judgment and experience" and that the Conselho Nacional dos Direitos da Criança e do Adolescente (National Council for the Rights of Children and Adolescents), through Resolution 163 of March 13, 2014,²¹ provides "on the abusiveness of advertising and marketing communication to children and adolescents," the country is far behind other nations, given the lack of regulation for food advertising; the current exception is the prohibition of any kind of advertisement of breast-milk substitutes.¹³ In March 2016, the Superior Court of Justice "considered abusive and prohibited an advertising campaign aimed at children"; this action, relating to an advertising campaign in particular, is a precedent which may have an impact on other similar cases.²²

The 1988 Constitution establishes that Brazil is a participatory democracy and, therefore, partnerships at all levels between government and civil society should be considered as relevant and important actions for the country's growth.¹³ However, the importance of regulating partnerships between food and beverage industries in order to guarantee the health of the Brazilian population and the need to increase the power and control of government under society is undeniable.¹⁴ Nevertheless, Henriques et al. add that the measures that were considered with the purpose of regulating these activities have not been contemplated so far because there is a great conflict of interest established between the food industry and sectors of the Brazilian government. Among the many arguments presented by the sector, the principles of "freedom of expression", "individual freedom" and "freedom of choice" stand out.^{14,15} These statements, however, disregard the scientifically substantiated evidence that demonstrates the persuasive power of marketing

strategies, as well as an excessive increase in palatability, which can lead to food addiction and uncontrolled appetite.

Conflict of interest in the relationships of the ultra-processed food industry and health professionals in Brazil

Nutrition associations and entities are bodies made up of health professionals trained to identify nutritional quality characteristics of foods. Therefore, when establishing a partnership with the ultra-processed food producing sector, these bodies give legitimacy to the products and support consumers' perception of safety, since their negative effects are not exposed.²³⁻²⁶ The link between health professionals and industry indicates product endorsement, attributes positive emotion to the brand, and increases the chances of consumer loyalty, which directly reflects the increase in sales.²³

Another influence caused by the alliance between the ultra-processed food industry and health professionals is through the dissemination of sponsored scientific papers: international studies have shown that these publications present favorable outcomes in four to eight more times when compared to non-industry sponsored publications.¹⁵ Scientific research sponsored by the productive sector with commercial interest in the results may bring insufficient results to the proper approach of the problem, that is, there may be omission on the evidence associated with risk or injury.²⁵

Another situation of clear conflict of interests is illustrated by the financing of national and international congresses and the lectures inserted in the scientific programming of events; in addition to financial involvement, the ultra-processed food industry also offers travel and dining at high-cost restaurants.²⁶ The provision of gifts to professionals is a way of ensuring that the products of a given company are provided to patients.²⁵

It is also important to reflect on sponsorship by the food industry of world events such as World Cup and Olympics, especially if corporations have practices, political actions or products that conflict with the objectives of public health actions, such as the presence of Coca-Cola and McDonald's in the World Cup held in 2014, as well as the Olympics in 2016, both in Brazil. It is important to emphasize that the industry is present at the meetings, distributing products and advertising.²⁷

The scientific community operates its production according to guidelines and principles from the conception of a problem until the disclosure of the findings in the form of articles or communications in events. Thus, the scientific effort must seek the truth about the object of study independently of financial interests that may not promote social welfare.²⁸

Advances in actions aimed at healthy eating

It is important to clarify the role of the ultra-processed food industry in relation to the key segments of society. Some associations already suggest the creation of a code of conduct: the industry must find creative ways to meet the real needs of consumers by providing a healthy, low-cost, economic, convenient and quality food, as well as moving away from scientific and professional activities of health professionals, without any form of embarrassment, association of image or brand, or participation with decision-making power over the scope of a study or scientific event.^{14,15}

The British company McKinsey² has produced a report with about 70 experiments aimed at the prevention of obesity with more than 600 referenced scientific articles. Among the topics presented, attention is drawn to the creation of a comprehensive program, involving public managers, the food sector, educators and health professionals in intervention actions in behavior change. The authors of this report predicted a 20% decrease in overweight and obesity with the joint implementation of these actions; the report also points out that if food and nutrition education actions were taken along with improvements in the food environment, it would be possible to reduce intervention costs to fight obesity by 67%.

The Pan American Health Organization (PAHO) reinforces the role of diet as a major determinant, as well as trade and agriculture policies, to address the current scenario of growing sickness of the world population. In October 2014, PAHO members approved the Plan of Action against Childhood Obesity for the years 2014 to 2019. Among its recommendations, there are fiscal policies and incentives to increase the production and consumption of healthy foods; regulation of food advertising; better labeling of processed food and beverage products; improved school feeding and increased physical activity for schoolchildren. In addition to these guidelines, there is synergistic and coherent action between the government, the scientific community, civil society organizations, the media, and the private sector to implement political agreements.^{12, 29}

Another important measure is the structuring of agricultural subsidies to support public health, not just *commodity* producers,¹⁶ associated with market regulation and fiscal measures that do not favor the large food industries. These actions are part of this structural plan: to establish land concentration limits, to improve the availability of fresh and locally sourced food in order to promote family farming, and to promote and strengthen food preparation and cooking skills.¹²

State and civil society actions are essential to encourage the consumption of regional foods, the development of strategies to reduce the presence of industrialized foods with low nutrient density and high energy density in the food routine, the promotion of physical activity in safe urban environments, as well as convenience spaces and quality collective means of transport that enable sustainable living habits.¹¹ The publication of the *Dietary Guidelines for the Brazilian*

Population,¹¹ in the second semester of 2014, represented an advance against the directives on healthy food for the Brazilian population, when proposing the classification of foods based on the degree of processing and when valuing the choice for food *in natura* and minimally processed; the publication is an invitation for the population to take a more critical look at the information they receive about food.¹¹

It is understood that control and balance are two overriding words to align the financial interests of the food industry with public health objectives,¹⁶ in the same way as government commitment and investment.¹² This discussion is called “Science of the effect of corporate behavior on health”, an emerging area of public health that needs to be substantially developed.¹

Final considerations

We live in a scenario of high prevalence of chronic diseases, one of the main causes being the consumption of ultra-processed foods, which is favored by the capital flow, as well as marketing planning and other actions carried out by the industry associated with health professionals.

Even though many movements are already being carried out to promote healthy eating, it is necessary to transform practices and principles and to make this discussion more and more public, so that there is transparency and equity. All actions must be carried out in accordance with the principles of social justice, cultural sensitivity, economic viability and environmental sustainability.

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Collaborators

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