

Food advertising aimed at children and adolescents in Brazil: a longitudinal analysis of denouncements in CONAR

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Abstract *Scientific evidences show that self-regulation models fail to protect children and adolescents from commercial exploitation. In Brazil, the “Conselho Nacional de Autorregulamentação Publicitária – CONAR” is the entity that proposes guidelines for the products advertising and services to regulated sector. The aim is to analyze the denouncements of food advertising aimed at children and adolescents sent to CONAR between 2010 and 2020. The denouncements were described regarding the type of product and service, authorship (consumers/companies or CONAR), and CONAR decision (archiving/penalties). Descriptive and association analyzes were performed. Ninety-eight denouncements were identified, 74.8% of ultra-processed foods. There was an oscillation in the submission of denouncements over the years, with a general decline trend. Consumers were more frequent among the denouncements (58.6%) and 53.3% of total were penalty. Denouncements sent by CONAR or companies were more frequently penalized than those sent by consumers. There was a predominance of denouncements of advertisements for ultra-processed foods and low application of penalties. There was a lack of isonomy in CONAR decision pattern on advertisements.*

Key words *Products publicity control, Child, Adolescent, Industrialized foods*

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Introduction

Exposure to unhealthy food advertising influence individual attitudes and food preferences and, consequently, increase the consumption of advertised products¹. When advertising is headed at children and adolescents, especially those under 12 years of age, their effect on eating behavior is even more significant as this public has difficulty understanding the commercial nature of the advertising message².

In Brazil, food advertising is highly disseminated to children, especially those on unhealthy foods³⁻⁸. On television in 2018, nine out of ten food advertisements included at least one ultra-processed food³, and almost 60.0% contained techniques to target children and adolescents⁷. In social media, such as Facebook, Instagram, and YouTube, there is also an expressive volume of advertising for food brands aimed at the public^{5,6,8}.

These findings point to a need to ensure protection for Brazilians under 18 years of age from unhealthy food advertising. This is a relevant issue for public health since the exposure of children and adolescents to this type of content has been identified as one of the determining factors in the high rates of overweight in this group⁹⁻¹¹. In Brazil, according to data from the 2020 Food and Nutritional Surveillance System (SISVAN), 15.8% of children between five and ten years old are overweight, and 9.4% are obese. Similarly, 19.9% of adolescents are overweight, and 9.8% are obese¹².

In Brazil, the mixed model of advertising regulation is in force, henceforth both the State and private actors (self-regulation) act on the subject. Regarding self-regulation, since the late 1970s, the National Advertising Self-Regulation Council (CONAR) has proposed guidelines for the productive sector regarding the adequacy of advertising in the country, including that aimed at children and adolescents. This self-regulation system includes communication vehicles, advertising agencies, and Brazilian advertisers¹³, but it has been questioned due to the lack of generality (since CONAR's decisions are valid only for its members) and coerciveness (since the decisions of the CONAR have no binding force)¹⁴.

Given this, the present study aimed to analyze the denouncements about food advertising directed at children and adolescents sent to CONAR between 2010 and 2020 and the decisions taken based on them. The study hypothesizes that CONAR, resembling other advertising

self-regulation systems¹⁵, does not deal impartially with complaints about food advertising directed at children and teenagers in Brazil. For example, CONAR prioritizes the application of penalties in denouncements originating from the regulated sector to the detriment of consumers' denouncements. Furthermore, it is assumed that the denouncements are centered on advertisements for ultra-processed foods and increased over time, especially those published in digital media.

Methods

This is an exploratory study on denouncements about food advertising directed at children and adolescents sent to CONAR between 2010 and 2020. This entity considers children to be people up to 12 years of age and adolescents between 12 and 18 years.

The Brazilian Advertising Self-Regulation Code (CBAP) is the regulatory text that brings the guidelines proposed by CONAR to guide advertising in Brazil¹⁶. It is divided into five chapters that include: i) introduction; ii) general principles (among them a segmentation of advertising aimed at children and young people); iii) specific categories of advertisements (includes specific attachments, including one on advertising for food, soft drinks, juices, and similar beverages); iv) responsibilities and v) infractions and penalties. The guidelines regarding advertising aimed at children and youth and the annex on advertising for food, soft drinks, juices, and similar drinks can be found in Chart 1.

All advertising denouncements submitted to CONAR between January 2010 and December 2020 in the 'children and adolescents' category and the food segment were eligible for the study. The denouncements were collected on the official CONAR website (<http://www.conar.org.br>) between 09/29/2020 and 05/12/2021 and organized in an Excel spreadsheet by a researcher. A second researcher checked the data to minimize collection errors and fix inconsistencies. The channel for sending denouncements is available on the association's website. To submit them, the whistleblower must identify himself and fill in the fields about the advertised product/service, communication vehicle, and reason for the complaint¹⁷.

Each denouncement is identified on the website by the information: month/year of the trial, the advertiser (company denounced of), the

Chart 1. Excerpt from the Brazilian Advertising Self-Regulation Code (CBAP) of the National Advertising Self-Regulation Council (CONAR) includes guidelines concerning advertising directly to children and young audiences, and Exhibit H.

Chapter II – General Principles	
Section 11 – Children and young public	
Article 37	The efforts of parents, educators, and community authorities should find in advertising a supporting factor in the formation of responsible citizens and conscious consumers. Faced with this prospect, no advertisement can do consumer appeal directly to children.
I – The advertisement shall reflect special care in relation to safety and good manners, and shall not:	<ul style="list-style-type: none"> a. demerit positive social values, such as, among others, friendship, politeness, honesty, justice, generosity and respect to people, animals and the environment; b. deliberately cause any kind of discrimination, in particular of those who, for whatever reason, are not consumers of the product; c. associate children and adolescents to situations incompatible with their condition, whether they are illegal, dangerous or socially objectionable; d. enforce the notion that consumption of the product will provide superiority or, failing that, inferiority; e. cause situations of embarrassment to parents or guardians, or harass third parties, to enforce the consumption; f. employ children and adolescents as a means to vocalize direct appeal, recommendation or suggestion of use or consumption, admitted, however, their participation in the relevant service or product demonstrations; g. use journalistic format in order to avoid that advertisement is confused with news; h. trumpeting that product intended for consumption by children and adolescents contains peculiar characteristics that, in fact, are found in all similar products; i. use psychological pressure or violence situations that are able of causing fear.
II – When the products are intended for consumption by children and teenagers their advertisement shall:	<ul style="list-style-type: none"> a. try to contribute to the positive development of relations between parents and children, students and teachers, and other relationships involving the target audience of this regulation; b. respect the dignity, naivety, credulity, inexperience and the sense of loyalty of the audience; c. give special attention to the psychological characteristics of the target audience, assuming their reduced capacity of discernment; d. observe such care so as to avoid any psychological distortions in advertising models and target audience; e. refrain from encouraging socially reprehensible behavior.
III – This Code condemns the action of contracted, indirect merchandising or advertising that depicts children, uses elements of the infant universe or other artifices with the deliberate purpose of capturing the attention of this audience, whatever the vehicle used may be.	
IV – In segmented content that is created, produced or programmed specifically for the children, whatever the vehicle used may be, the advertising of products and services intended exclusively for this public is restricted to intervals and commercial spaces.	
V – In order to evaluate conformity of indirect contracted advertising or merchandising to the provisions of this Section, the following shall be taken into consideration:	<ul style="list-style-type: none"> a. the target audience must be composed of adults; b. the product or service must not be advertised for its consumption by children; c. language, images, sounds and other artifices contained in the advertising or merchandising must be devoid of purpose of arousing the curiosity or the attention of children.
First paragraph	Children and teenagers should not appear as advertising models in any advertisement that promotes consumption of any goods and services incompatible with their status, such as firearms, alcoholic beverages, cigarettes, fireworks and lotteries, and all other products subject to legal restriction.
Second paragraph	The media planning of product advertisement dealt with in item 2 shall take into account that children and teenagers have their attention especially focused on such advertisement. Accordingly, it shall reflect the technical and ethically recommended restrictions and the more constructive construction shall be adopted for all rules established herein.
Exhibit H – Food, soft drinks, juices and similar beverages	
When the product is designed to children, the advertisement shall not have any imperative stimulation of acquisition of consumption, especially if presented by a family, school, medical, sport, cultural or public authority, or of institutional nature that promote healthy nutrition habits.	

Source: National Advertising Self-Regulation Council.

whistleblower (responsible for forwarding the denouncement), rapporteur (CONAR member responsible for evaluating the denouncement), chamber (departments of the entity related to the evaluation of the denouncement), a summary of the denouncement (text containing the whistleblower's motivation, the advertiser's response and CONAR's understanding of the denouncement, in addition to the place where the advertising was displayed), decision (whether a penalty was applied for the publicity denounced) and grounds (CBAP articles in which the denouncements potentially fall). The present study worked with the data: type of food advertised, a summary of the denouncement (to extract the place where the advertising was displayed), the whistleblower, and CONAR's decision.

The foods promoted in the denounced advertisements were classified into fresh or minimally processed and ultra-processed foods, according to the NOVA¹⁸ classification. Next, we subdivided foods into sweets, ultra-processed drinks, and frozen/instant preparations. Notably, processed foods or beverages were not reported in the denouncements sent. In the case of denouncements about advertisements for commercial establishments, these were categorized into fast-food restaurants, traditional restaurants, and sweetshops.

The advertising display location was extracted from the summary of the denouncements and referred to: physical environments, print media, radio, television, internet, or various vehicles. For purposes of organizing the results, these locations were categorized into: i) traditional media (physical environments, print media, radio, and television), ii) digital media (internet) and iii) multiple media (various vehicles).

As for the whistleblower, the denouncements made to CONAR assume five different authorships: i) CONAR on its own initiative, when the council itself makes a denouncement through the inspection of advertisements by its rapporteurs; ii) CONAR upon consumer denouncement, when the denouncement is made by CONAR because consumers complained about advertising; iii) Superior Council of CONAR, when the denouncement is forwarded by the Public Prosecutor's Office or the Public Prosecutor's Office of any state directly to the highest level of the CONAR entity; iv) Companies; and v) Group of consumers, such as denouncements sent by consumers or institutions that protect the rights of children and adolescents. Based on this, the authors of the denouncements were classified into

CONAR or companies (cases i and iv) and consumers (cases ii, iii, and v).

CONAR's final decision was also registered regarding the denouncements, which may have four outcomes: i) alteration – the advertiser is recommended to correct and adapt the advertising; ii) suspension – advertising is interrupted, that is, prevented from continuing to be broadcast; iii) warning – the advertiser is reprimanded because of the reported advertising; or iv) archiving – the denouncement is not subject to penalty. Denouncements, when not archived, may receive more than one penalty, such as a warning followed by an alteration. We classified decisions into two main categories: archiving or penalties (alteration, suspension, or warning).

Statistical data analysis included estimating the relative frequency of food categories, advertising display location, whistleblowers, and outcomes applied to the denouncements. The data was stratified by the year in which the denouncement was made. In addition, we analyzed the association between CONAR's decision, the advertisement displaying place, and the denouncements' authorship using the chi-square test. We adopted a significance level of 5% ($p < 0.05$) to define statistically significant differences. We organized data in Microsoft Excel 2016 spreadsheets and statistical analyzes using Stata statistical software version 14.0.

Results

In the 11 years of the study, 308 denouncements of advertisements directed at children and adolescents were identified, 31.8% ($n = 98$) of the food segment (food or beverages and food establishments) (Table 1). The highest number of denouncements was noted in 2010 ($n = 14$), with a downward trend until 2014 ($n = 6$). In the following two years, the number of denouncements grew and remained stable in 2016 ($n = 10$) and 2017 ($n = 10$). As of 2018, this number has declined again (Figure 1).

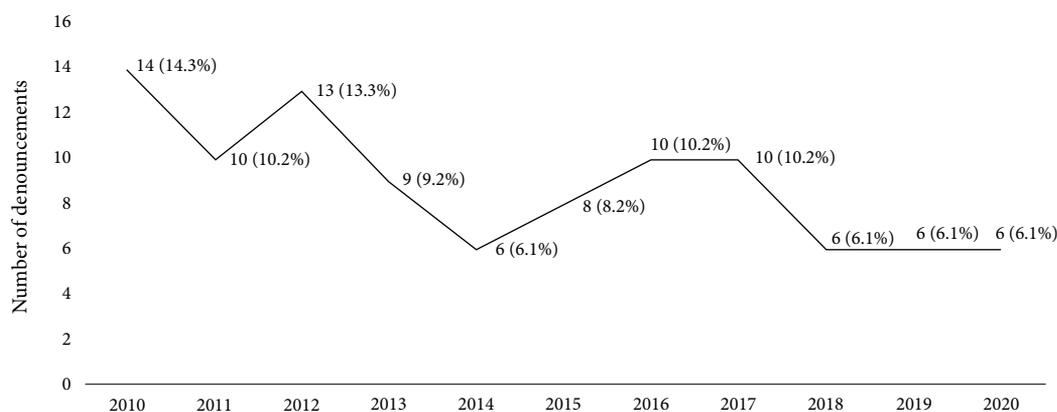
Advertisements for ultra-processed foods were the most frequently reported ($n = 74$; 74.8%), followed by commercial establishments ($n = 22$; 23.6%). Despite this, in 2018 and 2020, both types of displays accounted for 50% ($n = 3$) of denouncements (Figure 2A).

There was a predominance of denouncements about advertisements displayed in traditional media concerning other types of media until 2019, when denouncements about adver-

Table 1. Characterization of advertisements denounced to the National Advertising Self-Regulation Council (CONAR) between 2010-2020, according to the type of advertised product.

Advertised product type	n	%	Description
Fresh or minimally processed food	2	2.0	
Mineral water	1	1.0	Mineral water with or without gas
Coffee	1	1.0	Ground roasted coffee
Ultra-processed foods	74	75.6	
Goodies	38	38.8	Cakes, biscuits, chocolates, sweets, packaged snacks
Ultra-processed drinks	33	33.7	Dairy or similar drinks, energy drinks, soft drinks, industrialized juices
Frozen/instant preparations	3	3.1	Frozen processed foods, instant noodles
Commercial establishments	22	22.4	
Fast food restaurants	15	15.3	Meals or snacks from fast food restaurants
Sweetshops	4	4.1	Own-brand chocolate and candy sales establishments
Traditional restaurants	3	3.1	Dishes selling establishments
Total	98	100.0	-

Source: Authors.

**Figure 1.** Denouncements of food advertisements directed at children and adolescents sent to the National Advertising Self-Regulation Council (CONAR) between 2010-2020.

Source: Authors.

tisements in digital media surpassed those in traditional media (Figure 2B). Consumers were the most frequent whistleblowers (58.6%) except in 2010 and 2019, when the authorship of denouncements by CONAR or companies was 71.4% and 83.3%, respectively (Figure 2C). Just over half (53.3%) of the denouncements received a penalty, although, in four years (2014, 2015, 2019, and 2020), the frequency of penalties and archiving was equal to 50.0% (Figure 2D).

No association was found between the place where the advertisements were displayed and CONAR's decision. On the other hand, denouncements sent by CONAR or companies had a higher frequency of penalties (58.5%) compared to archiving (22.2%), while denouncements sent by consumers were more frequently archived (77.8%) than penalized (41.5%), $p < 0.001$ (Table 2).

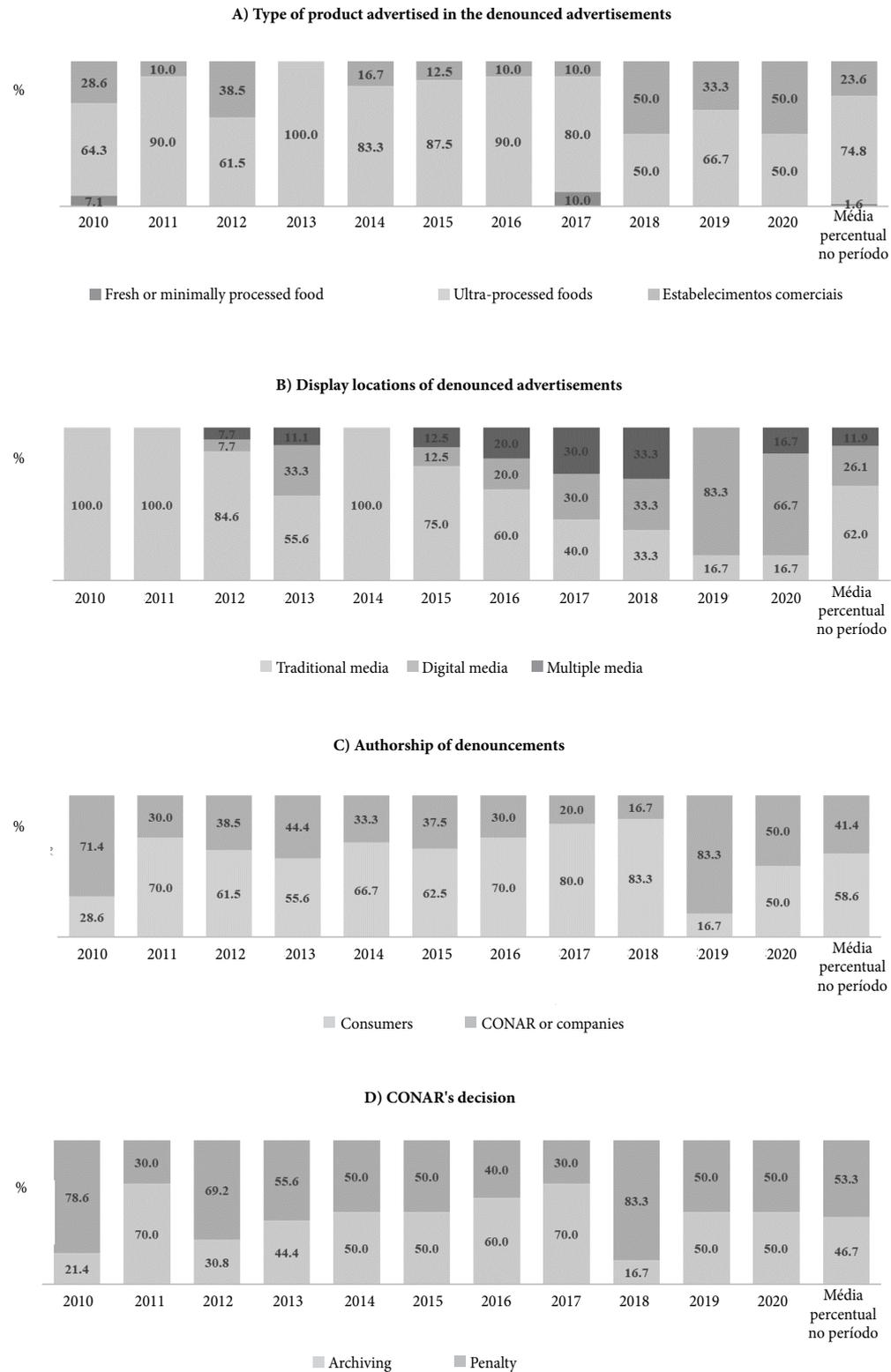


Figure 2. Characterization of food advertising denouncements directed at children and adolescents sent to the National Advertising Self-Regulation Council (CONAR) between 2010-2020.

Source: Authors.

Discussion

The results of this study show a high number of denouncements about advertising directed at children and adolescents sent to CONAR between 2010 and 2020. The denouncements about advertising for products and services in the food segment represent about 1/3 of the total denouncements, with the most ultra-processed foods. Of these denouncements, just over half received penalties. The longitudinal data analysis points to an oscillation in the sending of denouncements, with a general trend to decrease. Between 2010 and 2014, the number of denouncements dropped, followed by an increase in the following years until reaching stability in 2016 and 2017. In 2018, the number of denouncements declined again. Consumers were the main actors engaged in sending denouncements to CONAR and had, more prevalently, their denouncements archived when the application of penalties was more frequent in advertising denouncements sent by CONAR or companies. In addition, as of 2019, the number of advertisement reports published in digital media has surpassed the number published in traditional media.

To better understand the results of this study, some hypotheses can be formulated. The low frequency of imposing sanctions on denouncements could explain the decrease in the number of denouncements addressed to CONAR over time. It is assumed that a person, civil society institution, or company that files a denouncement with a regulatory agency, regardless of which one it is, expects the accused to be sanctioned. Otherwise, they will not feel encouraged to file further denouncements. Nevertheless, in the two years following 2014, the number of denouncements submitted to CONAR has increased. That could be related to the publication of the Resolution of

the National Council for the Rights of Children and Adolescents (CONANDA) No. 163/2014, which recognizes illegal advertising that communicates directly with children and adolescents and identifies the elements that characterize this type of commercial message¹⁹. This may have informed and sensitized society to send denouncements on the subject.

However, in 2016 and 2017, the number of food advertising denouncements sent to CONAR stabilized and began to decline from 2018 onwards. This change may be related to two relevant judgments by the Superior Court of Justice (STJ) in 2016 and 2017. Hence, the STJ established the first two precedents on food advertising directed at children. In both cases, companies used gifts to encourage the consumption of unhealthy foods, which was considered illegal^{20,21}. The decision of one of the highest courts in the country may have signaled to the private sector that such a practice would no longer be tolerated. As a result, the regulated sector may have reduced marketing communication aimed at children, resulting in fewer reports on the subject. On the other hand, it is also possible to assume that this has led the sector to invest in advertisements that make it difficult for consumers to identify them.

The greater participation of consumers among the authors of the denouncements suggests that Brazilian society is dissatisfied with the advertising practices aimed at children and adolescents executed by the food industry. Parents and guardians of children or other consumers are concerned about protecting children and young people from advertising appeals and recognize that food advertising aimed at this audience is not innocuous and can play a negative role in the diet of children and adolescents²². For these reasons, these subjects may have resorted to CONAR, aiming to ensure the inspection of

Table 2. Association between authorship of the denouncement and advertising display locations and the decision of the National Advertising Self-Regulation Council (CONAR) between 2010-2020.

	Arquivamento n (%)	Penalidade n (%)	P
Display locations of denounced advertisements			
Traditional media	32 (71.1)	34 (64.2)	0.398
Digital media	7 (15.6)	14 (26.4)	
Multiple media	6 (13.3)	5 (9.4)	
Authorship of denouncements			
Consumers	35 (77.8)	22 (41.5)	< 0.001
CONAR or companies	10 (22.2)	31 (58.5)	

Source: Authors.

this practice. Despite this, CONAR discourages the submission of denouncements through electronic media dissemination campaigns. A video produced by the entity and available on its YouTube channel (<https://www.youtube.com/watch?v=9HCEir8pv8o&feature=youtu.be>) criticizes the denouncements sent to CONAR and classifies some of them as unfair.

In addition, the difference noted in the handling of denouncements sent by CONAR or companies about those sent by consumers suggests a lack of equality in decision-making by CONAR. A possible explanation would be that the entity does not recognize advertising aimed at children and adolescents as an abusive practice, despite an undeniable volume of scientific evidence that affirms the vulnerability of the children's public to commercial content^{2,23}. According to CONAR, advertising is a significant supporting factor in responsible citizens and conscious consumers²⁴.

Some factors may explain CONAR's position. First, the entity is predominantly formed and coordinated by the regulated sector itself. There is no representation of entities in defense of the rights of children and adolescents in the composition of CONAR. Thus, it is possible to assume that the association acts in its own interests. Currently, CONAR comprises 138 advertisers, including food sector advertisers²⁵.

Second, although the CBAP predicts that advertisements for food and beverages must refrain from encouraging excessive or exaggerated consumption and from underestimating the importance of healthy eating¹⁶, a document by the Brazilian Advertisers Association (ABA), an entity associated with CONAR and formed by the food industry associations such as the Brazilian Association of Food Industries (ABIA) and the Brazilian Association of Soft Drinks and Non-Alcoholic Beverages (ABIR), denies the existence of scientific evidence on the association between exposure of children and adolescents to advertising content and the consumption of advertised foods and beverages²⁶. The document still argues that there is no association between the exposure of children and adolescents to advertising of unhealthy foods and negative externalities in health, such as obesity and disease²⁶, despite the high number of scientific publications covering the topic²⁷⁻²⁹.

Another relevant finding of the study is the growing participation of denouncements about food advertisements directed at children and adolescents in digital media. Such spaces are being used more and more by the food industry to advertise their products³⁰ with investments that

totaled more than 1 million reais in 2020 in Brazil³¹. That occurs given the widespread development and popularity of digital technologies. According to data from a population-based survey carried out in 2018 with Brazilian children and adolescents between 9 and 17 years, 86% of the sample used the internet, and 93% accessed the network through a cell phone³². Among the children and adolescents exposed to advertising in this medium, about 40% asked their parents or guardians for the advertised products³².

Despite the increase in food advertising in the digital environment, the recognition of this content as an advertising practice is more difficult when faced with the use of strategies that mix commercial promotion with entertainment content, such as unboxing (a tactic in which the communicator shares the experience he had with a product he received from a company), product placement, influencer actions, among others^{33,34}. These characteristics increase the complexity of identifying this content as advertising from individuals, as they represent implicit endorsements and allow brands' advertising content to be fully integrated with the media content that children and adolescents consume³⁵. In addition, the way advertising is disclosed in the digital medium makes it more difficult to monitor these messages and, consequently, to communicate the denouncement and its punishment. Based on algorithms that extract demographic, location, navigation, and other personal characteristics of children and adolescents, advertising reaches digital devices in a personalized way³⁰. The registration and quantification of the number of people exposed to content distributed in this way is still a task that is little practiced. Because of these considerations, the fact that no differences were found in CONAR's decisions regarding the different places where advertising is displayed may be an indication that advertising in the digital medium is receiving the same treatment as those displayed in traditional media, despite the peculiarities of advertising in the digital medium.

Finally, the evidence produced by this study on dealing with denouncements of advertising directed at children and adolescents received by CONAR brings to light that the entity's performance has potential limitations in guaranteeing the protection of the public against abusive advertising content. This assumption has two relevant implications: one related to the need to reorganize CONAR's activities and the other regarding the importance of strengthening the regulation of advertising by the State.

From this first perspective, some actions could be taken by CONAR to minimize the asymmetries in handling complaints, such as i) changes in its composition, with the inclusion of consumers and entities to participate in decision-making and defend their interests; ii) transparency in the reporting of denouncements, allowing access to the publicity reported and the original content prepared by the whistleblower; iii) proposal of systematic schemes for monitoring and inspecting advertisements that promote audit free of interest by the regulated sector; vi) readjustment of the CBAP so that it is more aligned with the State's guidelines on advertising aimed at children and youth. For example, the current CONAR guidelines that guide the advertising of products aimed at children allow the commercial message to be directed at children and adolescents¹⁶. This is a position contrary to what is established in the Consumer Defense Code (CDC) and Resolution n°163/2014 of CONANDA, which considers as abusive, and therefore illegal, the publicity directed to this public¹⁹.

From the point of view of stronger government regulation of advertising, even if CONAR is restructured as mentioned above, strengthening legal legislation is essential to protect the societal interests since self-regulation is not aimed at public health but rather at promoting advertisers (albeit with limitations)³⁶. According to the Pan American Health Organization (PAHO), governments should lead the process of implementing, monitoring, and evaluating food advertising regulatory measures to avoid conflicts of interest and thus protect the public interest³⁷.

However, the issue of effective regulation of food advertising aimed at children has made little progress in Brazil. In 2006, when there was an attempt by the National Health Surveillance Agency (ANVISA) to put limits on the advertising of food products with low nutritional value, a strong reaction from the regulated sector, including CONAR, led to the suspension of the Collegiate Board Resolution (RDC) n° 24/2010³⁸. In addition, since 2007, the Brazilian legislature has had at least 18 regulatory proposals for this purpose,

which continue to have no prospect of approval and application in the country³⁹. Strengthening state regulation is part of the premise that advertising is a commercial activity, and it is a right of the regulated sector. However, this right is not absolute and should not prevail over the rights of children and adolescents¹¹. The inertia in this agenda points to the non-application of guidelines from the National Food and Nutrition Policy (PNAN), which provides for limits on food advertising unhealthy for children and youth⁴⁰.

Some limitations of the results shown in this study must be emphasized. First, it is inaccessible to know whether the denouncements on the CONAR website reflect all the denouncements that reach the association, and this could be underestimated. Second, it is impossible to see the denouncements' full text and the respective decisions, which limits an accurate assessment of the cases forwarded and their relevance. This limits, for example, the understanding of the motivations of the various actors for forwarding denouncements to CONAR and the agency's position on each denouncement. Besides, the impossibility of knowing the denouncements' totality also limits the understanding of the denouncement quality, in terms of writing and argumentative logic, among others. This fact may affect the complete understanding of the content of the denouncement and its outcome.

The present study described, in an unprecedented way, the profile of denouncements about food advertisements directed at children and adolescents sent to CONAR and how they handled it. The main results denote a predominance of denouncements about ultra-processed food advertisements between 2010 and 2020, emphasizing advertisements published in digital media in recent years. In general, the number of denouncements fluctuated over the years with a general tendency to decrease, contrary to the initial hypothesis of this study. Consumers were the main denouncers; however, denouncements made by them were more frequently archived when compared to denouncements of advertisements sent by CONAR or companies.

Collaborations

JP Matos and PM Horta participated in the design of the study, data analysis and writing of the manuscript. M Gondo participated in the writing and final review of the manuscript. LSE Mota participated in data collection and writing of the manuscript.

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