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The extent and nature of food advertising to children on Spanish television in 2012 using an international food-based coding system and the UK nutrient profiling model

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ABSTRACT

Objective: To examine the extent and nature of food television advertising directed at children in Spain using an international food-based system and the United Kingdom nutrient profile model (UKNPM).

Study design: Cross-sectional study of advertisements of food and drinks shown on five television channels over 7 days in 2012 (8am-midnight).

Methods: Showing time and duration of each advertisement was recorded. Advertisements were classified as core (nutrient-rich/calorie-low products), non-core, or miscellaneous based on the international system, and either healthy/less healthy, i.e., high in saturated fats, trans-fatty acids, salt, or free sugars (HFSS), according to UKNPM.

Results: The food industry accounted for 23.7% of the advertisements (4212 out of 17,722) with 7.5 advertisements per hour of broadcasting. The international food-based coding system classified 60.2% of adverts as non-core, and UKNPM classified 64.0% as HFSS. Up to 31.5% of core, 86.8% of non-core, and 8.3% of miscellaneous advertisements were for HFSS products. The percentage of advertisements for HFSS products was higher during reinforced protected viewing times (69.0%), on weekends (71.1%), on channels of particular appeal to children and teenagers (67.8%), and on broadcasts regulated by the Spanish Code of self-regulation of the advertising of food products directed at children (70.7%).

Conclusions: Both schemes identified that a majority of foods advertised were unhealthy, although some classification differences between the two systems are important to consider. The food advertising Code is not limiting Spanish children's exposure to advertisements for HFSS products, which were more frequent on Code-regulated broadcasts and during reinforced protected viewing time.

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Introduction

The prevalence of childhood obesity in Spain, where about one in every three children are overweight,[1] is among the highest in Europe.[2] A highly probable contributing to this statistic is the intensive advertisement campaigns for energy-dense food and drinks, and their influence on children's food preferences and caloric intake.[3] Although there are few studies linking directly food advertising and obesity in children,[4,5] there is strong evidence of the association of television (TV) viewing with greater consumption of energy-dense food and obesity.[6,7] One of the main potential mechanisms mediating this relationship is food advertising.[8] Despite new technologies, TV remains the main channel for marketing food and drinks to children.[9]

In 2010, the World Health Organization endorsed the 'Set of recommendations on the marketing of foods and non-alcoholic beverages to children' encouraging Member States to: a) collect information on the extent, nature, and effects of food and drink marketing to children; and b) push through policies reducing the impact on children of marketing of foods high in saturated fats, trans-fatty acids, free sugars, or salt (HFSS).[10] Although the majority of the EU countries rely on self-regulatory mechanisms, in Sweden any advertising targeted at children under the age of 12 years is banned and in the UK statutory rules apply to advertisements for HFSS foods on TV channels dedicated to children.[9] In Spain, marketing techniques of TV advertisements of food and drinks (AFD) directed at children under 12 years are regulated by the Publicity, Activity, Obesity, and Health Code (PAOS code for its acronym in Spanish).[11] This is a non-statutory code of co-regulation, supervised by the Spanish Food Safety and Nutrition Agency (AESAN for its Spanish acronym), that establishes the ethical principles and standards for the design and dissemination of advertising messages (e.g. avoid exploiting children's credulity or using famous persons popular with them). However, it doesn't regulate the nutritional quality of the advertised products or the broadcasting frequency. Though voluntary in nature, in 2009 the Federation of Radio and TV Organizations of the Spanish Autonomous Regions and the Associated Trade TV Union subscribed to the PAOS Code subjecting all TV food advertising targeted to children to regulation. Recently, the AESAN, PAOS Code sponsor agency, established a set of indicator measures for the longitudinal evaluation of the extent and nutritional value of AFD.[12]

Research on AFD directed at children in Spain is scarce and presents important limitations.[13–18] Some studies are merely informative in nature with a limited description of methodology and results.[13,16] Others record a small number of days and hours of broadcasting[18] or channels.[15] Finally, of two international studies with Spanish participation, one is a qualitative study[14] and the other is based on a limited number of channels and days of broadcast.[17] Their results showed that most advertised products were highly processed and energy-dense food and drinks, but the majority of the studies didn't analyze the nutritional profile of the products.

The main aim of this study was to perform a comprehensive analysis of the extent and nature of AFD directed at children in Spain using an international food-based system and the United Kingdom nutrient profiling model (UKNPM).[19] This analysis will provide baseline data to compare follow-up data against and evaluate the impact of the PAOS code and other potential future interventions aimed at reducing children exposition to TV food advertising, in accordance with the recommendations of the AESAN and the international network for food and obesity/non-communicable diseases research, monitoring and action support.[20]

Methods

Study design

This is a cross-sectional study of AFD directed at children (<12 years old, according to PAOS Code) in Spain. The sample consists of 7 days (Monday through Sunday) worth of public broadcasting by five popular Terrestrial Digital Television (TDT) channels. Boing, Disney Channel, and Neox channels target child and adolescent populations (appealing-to-youth) and Antena 3 and Telecinco are the two general interest channels with the highest child audience ratings.[21] Broadcastings were recorded between January and April of 2012, except vacation periods, during a modified child viewing time (6:00–22:00), according to Spanish regulation. This modification excludes the slot between 6:00 and 8:00, with hardly any audience, for the 22:00–24:00 slot where the last daily peak in child audience is usually registered in Spain.[22]

Data collection and study variables

Three research assistants were trained to standardize data collection, and recorded the following information for each advertisement: channel, industry, program type during which the advertisement is broadcasted, day of the week, time of day, and duration of the advertisement. There were three types of advertisements: commercial (standard advertisement), sponsorship (a food company pays for a television program in return for advertising), or telepromotion (advertisements using the settings and characters of a television program). The audiovisual communication law has established the enhanced protection of the following time slots: 8:00–9:00 and 17:00–20:00 (weekdays) and 9:00–12:00 (weekends and national holidays), where programs classified as suitable only for children over the age of 13 years are not permitted.[23]

International food-based coding system

Products in AFD were classified into three categories according to published criteria: core (nutrient-rich/calorie-low products), non-core (HFSS products and/or energy-dense), and miscellaneous.[17,24] If one AFD promoted several products, the most prominent or the first one shown was coded. In AFD of products with different varieties or flavors, the brand's most representative or the most easily identifiable was coded. When all or none of the varieties were shown, we chose the one with the known highest consumption in the population at large; e.g., the semi-skimmed variety for dairy products, the

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