

in early-onset colitis: caution advised. *J Pediatr Gastroenterol Nutr.* 2015;61:e12–4.

6. Kumagai H, Yokoyama K, Imagawa T, Inoue S, Tulyeu J, Tanaka M, et al. Failure of fecal microbiota transplantation in a three-year-old child with severe refractory ulcerative colitis. *Pediatr Gastroenterol Hepatol Nutr.* 2016;19:214–20.

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Food and drinks advertising directed at children on television during reinforced protection time slot in Spain, 2017[☆]



Publicidad televisiva alimentaria en horario infantil reforzado en España, 2017

Dear Editor:

Childhood obesity is one of the greatest public health problems in Spain and thus one of the great challenges our society faces. In Spain, according to data from the ALADINO¹ study conducted in 2015, the prevalence of overweight in children aged 6–9 years is 23.2%, and the prevalence of obesity 18.1%.

The question is, how did we get to this point? Our children lead increasingly sedentary lives, with limited physical activity and a pattern of consumption of unhealthy foods. The latter factor is one of the determinants of the obesity problem, and television advertisements may play a relevant role in it that should be analysed and controlled.² In Spain, the literature regarding this subject is scarce, with salient studies like the one performed by Royo Bordonada et al.³ revealing the considerable exposure of Spanish children to food advertising in television.

In this work, we conducted an observational pilot study with the aim of analysing the advertisements broadcast on television in the reinforced-protection children's viewing time, focusing on the 4 main stations in Spain whose programming include advertisements (Telecinco, Cuatro, Antena 3 and La Sexta). This time is scheduled Monday through Friday from 8:00 to 9:00 AM and from 5:00 to 8:00 PM, and Saturdays and Sundays from 9:00 AM to noon. We analysed 5 days during April 2017 (3 weekdays, Saturday and Sunday), reviewing a total of 72 h of programming (18 h broadcast by each station).

In the period under study, we counted 797 min of advertising (Table 1) broadcast during the protected children's viewing time (amounting to approximately 200 min per station). We counted a total of 2,847 advertisements, of which 679 (23.8%) were food-related, with an average of 9.5 food-related advertisements per hour of broadcasting. We classified these advertisements into groups of similar nutritional characteristics based on a simplified adaptation of the food categories of the European nutrient profile model developed by the World Health Organization (Table 2). The food groups advertised most frequently in the 4 stations were beverages and infusions (22.9%, mainly sugary drinks), confectionery, snacks and desserts (21.8%) and dairy (16.2%). We found that both the proportion of food-related advertisements and the most frequently advertised food group changed significantly between stations, which could be related to the self-regulation process implemented by each of them.

Our results suggest that nearly half of the advertisements seen by children during the "protected children's viewing time" promote the consumption of calorie-dense, sugary and unhealthy foods. Since minors also watch television during midday and evening meals and those time bands are not subject to the same stringent regulation of advertising, it is likely that the overall exposure to food advertising is even higher. In Spain, measures have been introduced in recent years to counteract this phenomenon, such as the HAVISA Plan, which includes small captions in advertisements that promote healthy habits, but which has little weight in advertisement broadcasting; the PAOS Code, which promotes self-regulation and responsibility in food product advertising targeting children aged less than 12 years, and the NAOS strategy, an important initiative for the prevention of obesity that has been at play since 2005. To date, the overall impact of these initiatives has proven insufficient.^{4,5} Due to all of the above, we believe that paediatricians should alert both citizens and institutions of the potential risks of food-related advertisements that do not promote better dietary habits and are broadcast at sensitive times in a medium as influential as television.⁶

References

1. Agencia Española de Consumo, Seguridad Alimentaria y Nutrición. Estudio ALADINO 2015: Estudio de Vigilancia del Crecimiento, Alimentación, Actividad Física, Desarrollo Infantil y

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Table 1 Analysis of overall advertising and food advertising broadcast by each station.

Television station	Time of advertising/total broadcast time (%)	Total number of advertisements broadcast	Food advertisements, <i>n</i> and % over the total advertisements broadcast by the station	Food advertisements per broadcast hour
Antena 3	16.7	693	181 (26.1)	10.1
Cuatro	23.1	897	193 (21.5)	10.7
Telecinco	14.3	507	111 (21.9)	6.2
La Sexta	19.6	750	194 (25.9)	10.8
Mean	18.4	711.8	169.8 (23.8)	9.5

Table 2 Food advertisements by broadcasting station and type of food advertised.

Food group	Antena 3 (%)	Cuatro (%)	Telecinco (%)	La Sexta (%)	Total (%)
Oils and fats (a)	3 (0.4)	0 (0)	0 (0)	0 (0)	3 (0.4)
Beverages and infusions (b)	13 (1.9)	41 (6.0)	49 (7.2)	53 (7.8)	156 (22.9)
Meat and fish (c)	7 (1.0)	5 (0.7)	12 (1.7)	5 (0.7)	29 (4.2)
Cereal (d)	37 (5.4)	10 (1.4)	2 (0.2)	9 (1.3)	58 (8.5)
Ready-made foods (e)	15 (2.2)	21 (3.0)	8 (1.1)	6 (0.8)	50 (7.3)
Confectionery, <i>snacks</i> , desserts (f)	53 (7.8)	58 (8.5)	6 (0.8)	31 (4.5)	148 (21.8)
Dairy (g)	22 (3.2)	20 (2.9)	22 (3.2)	46 (6.7)	110 (16.2)
FDApps (h)	0 (0)	4 (0.6)	2 (0.3)	13 (1.9)	19 (2.8)
Pizzas and burgers (i)	11 (1.6)	3 (0.4)	3 (0.4)	15 (2.2)	32 (4.7)
Other (j)	20 (2.9)	31 (4.5)	7 (1.0)	16 (2.3)	74 (10.9)
Total	181 (26.6)	193 (28.4)	111 (16.3)	194 (28.5)	679 (100)

Equivalence to the WHO food categories: a = category 10; b = category 4; c = categories 13, 14 and 15; d = categories 6, 11 and 12; e, h and i = category 9; f = categories 1, 2, 3 and 5; g = categories 7 and 8; j = categories 15 and 16.

FDApp, food delivery application.

Obesidad en España 2015. Agencia Española de Consumo, Seguridad Alimentaria y Nutrición. Ministerio de Sanidad, Servicios Sociales e Igualdad. Madrid; 2016.

- Boyland EJ, Nolan S, Kelly B, Tudur-Smith C, Jones A, Halford JC, et al. Advertising as a cue to consume: a systematic review and meta-analysis of the effects of acute exposure to unhealthy food and nonalcoholic beverage advertising on intake in children and adults. *Am J Clin Nutr.* 2016;103:519–33.
- Royo Bordonada MÁ, Rodríguez Artalejo F. Publicidad alimentaria y salud. Estado de la situación en España. *Mediterr Econ.* 2015;27:319–30.
- Leon-Flandez K, Rico-Gomez A, Moya-Geromin MA, Romero-Fernandez M, Bosqued-Estefania MJ, Damian J, et al. Evaluation of compliance with the Spanish Code of self-regulation of food and drinks advertising directed at children under the age of 12 years in Spain, 2012. *Public Health.* 2017;150:121–9.
- Galbraith-Emami S, Lobstein T. The impact of initiatives to limit the advertising of food and beverage products to children: a systematic review. *Obes Rev.* 2013;14:960–74.
- Lapierre MA, Fleming-Milici F, Rozendaal E, McAlister AR, Castonguay J. The effect of advertising on children and adolescents. *Pediatrics.* 2017;140 Suppl. 2:S152–6.

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