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TITLE:

Advertising, obesity and child health: the case of Spain

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A new Bill has recently been proposed in Spain addressed to regulates the advertising of unhealthy foods and beverages (F&B) aimed at children under 16y.[1]

Childhood and adolescent overweight and obesity represent one of the most important health risks worldwide. Spain is one of the European and worldwide countries with a highest prevalence of childhood and adolescent excessive weight (overweight + obesity), despite the measures adopted to date to try to control it. Four out of ten schoolchildren (6 to 9y) present excessive weight, being overweight more prevalent in girls, while obesity is more prevalent in boys.[2]

Obesity has a multicausal origin related to social determinants, the structural environment, lifestyles and/or genetics. Among the social determinants, the family income, the level of maternal education or the family's social class are the most rellevant. In the case of children 4-14y from low-income families, obesity is double, 23.2%, than for those living in high income families, 11.9%. The epidemic in Spain is more frequent in schools located in districts with greater child poverty. In spite of several interventions promoted at a different levels, between 2011 and 2019 it has been possible to reduce excess weight by only 3.9% in those aged 6-9y, which has gone from 44.5% to 40.6%. [2] The reduction is mainly attrributable to overweight and not to obesity. The situation may have gotten worse as a result of the COVID-19 pandemic.

The child and adolescent population with excess weight can have significant repercussions in adulthood, and is associated with a shorter life expectancy and a quality of life deterioration along the life course.

The obesogenic environment promotes excess weight gain in the population, facilitating more sedentary behaviors, less physical activity, unbalance sleep and mood, and unhealthy eating, from the consumption of calorie dense, nutrient poor, and high in added saturated fat and/or trans fat, sugar, or sodium (HFSS).

Advertising aimed at children and adolescents has an important influence on the consumption of HFSS F&B. Advertising can promote more positive attitudes, increased taste and consumption preferences and greater consumption of unhealthy F&B, and on the other hand a lower consumption of healthy foods overall in the diet, leading to an increase in body weight.[3] Children exposed to food advertising on TV and advergames consumed between 53.2 and 60 kcal more than children exposed to nonfood advertising, with an impact on body mass index (BMI). [4]

European Governments are increasingly implementing statutory policies that restrict HFSS F&B marketing to children. Policies show variability regarding the F&B they include in the restriction, which ages are protected, and which communication channels and marketing techniques are covered. Nevertheless, the intake of unhealthy F&B continues to increase being marketing techniques one of the associated factors. If not, why unhealthy F&B industry invest large quantities of budget to reach children through attractive advertisements and marketing strategies?

Eleven evaluations of policies in 4 countries found small or no policy-related reductions in unhealthy F&B advertising, in part because marketing shifted to other channels or venues. [5]

Among the policies implemented at European level, the UK government has announced new rules to regulate unhealthy F&B advertisiments online and before 9pm on TV.[6] The regulations will use the Nutrient Profiling Model (NPM), original from 2005, and revised in 2018, to assess the F&B dietary quality. The UK NPM consist in a score system, that enable to classify each F&B to an overall score that determines whether it can be advertised adressed to children. The revised profile includes 8% fewer F&Bpassing the model. Unluckly, until now, it was maintained a coregulation with voluntary target of enterprises on these codes. In 2019 it was found that almost half (47.6%) of all food adverts shown over the month on several channels were for less healthy F&B and this rises to nearly 60% during the 6pm to 9pm slot. Therefore, it is clear that the current coregulation didn't work.

In France, a law from 2016 suppressed any commercial publicity in public television programs and websites, produced for children under 12y. It applies to all advertising, thus including HFSS F&B. In not public television channels restrictions are applied in relation to the advertising of F&B. All television advertising, whether directed to children or adults, of HFSS F&B must be accompanied by a "healthy" message based on the Institute's nutrition education principles. The F&B dietary quality is assessed by the last version of the French Nutri-Score.

In Portugal, since 2019 restrictions to HFSS F&B have been applied both in online and audiovisual channels, in the time slot that goes from 30 minutes before to 30 minutes after the broadcast of programs for children, as well as in programs of television with a minimum of 25% audience under 16y or in movie theaters, publications, Internet, and mobile applications aimed at children of same ages.

In Sweden, there has been since the 1990s a general ban on television advertising for all kinds of products during programs aimed at children under 12y, which cannot be preceded or followed by advertising.

In Spain, the Code of co-regulation of F&B advertising aimed at minors, obesity prevention and health (PAOS Code), was adopted for the first time in 2005, and revised in 2011.[7] Currently, the government is proposing a new royal decree that intends to apply the NPM recommended by the WHO to define which F&B marketing contents could be addressed to children. The WHO-NPM consists of a total of 17 food categories and is based on existing models developed by Norway and Denmark.[8] The rationale is that the models use 'food category' approaches, which are easier to adapt or modify rather than using a scoring system. The Spanish proposal prohibits advertising in all kind of media, including TV, online, influencers, and characters, aimed at children under 16y. Moreover change the co-regulation by an external evaluation with potential penalty effects.[1] They argue that current advertising restrictions for unhealthy F&B are not going far enough to protect children from seeing a significant amount of unhealthy F&D adverts , and do not account for the increasing amount of time children spend

online. Similarly to the UK Government new rules the Spanish regulation would be launched in early 2023 if they are finally approved.

It seems that those regulations based on specific nutritional profiles, that includes not only TV but all kind of social media with potential influence on the childhood population are more effectives to achieve the proposed objectives of improving F&B preferences, dietary habits and finally contributing to reduce childhood obesity. It should also cover all types of media and timetable addressed to children, and should contemplate an external evaluation by a neutral body and potential penalties to really reduce marketing advertising that reach children.

In summary, the proposed measures are promising and can contribute to reducing excess weight if the aforementioned aspects are taken into account and are implemented together with other measures. To face the childhood obesity epidemic, the social inequalities reduction (and policies aimed at reducing childhood poverty, economic and geographic access to healthy food), the impulse of school, family and community interventions, and the holistic approaches including physical activity, sleep and psychological wellbeing promotion should accompany the F&B marketing regulations. Definitely, tackling the childhood obesity epidemic requires complex and nationwide strategies starting by effective structural measures as regulating F&B marketing addressed to children.

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Childhood and adolescent overweight and obesity represent one of the most important health risks worldwide. Despite the measures adopted to control these conditions, Spain is one of the European and worldwide countries with the highest prevalence of childhood and adolescent excessive weight (overweight + obesity). Four out of ten schoolchildren (6 to 9y) present either overweight or obesity , being the former more prevalent in girls and the latter more prevalent in boys.[1]

In Spain, a new Bill has recently been proposed to regulate the advertising of unhealthy foods and beverages aimed at children under 16y.[2]

Obesity has a multicausal origin related to social determinants, structural environments, and lifestyles. Among the social determinants, family income, maternal educational level, and family's social class are the most relevant. The obesity rate is twice as much (23.2%) for those children (4-14y) coming from low-income families than for those living in high-income families (11.9%). In Spain, such epidemic is more frequent in schools located in districts with greater child poverty. Despite several interventions promoted at different levels, between 2011 and 2019, it has been possible to reduce excess weight by only 3.9% in those aged 6-9y, which has decreased from 44.5% to 40.6%.[1] Such decline can be attributed to overweight but not obesity. This slight achievement could be associated to programs addressed specifically at this age group, the majority of them integrated in a national strategy named NAOS (Nutrition, physical activity and obesity prevention).[1] The 2019 situation may have gotten worse as a result of the COVID-19 pandemic.

The child and adolescent population with excess weight can have significant repercussions in adulthood. In addition to this, it is associated with a shorter life expectancy and quality of life deterioration along the life course.

An obesogenic environment promotes excess weight gain in the population, more sedentary behaviours, less physical activity, unbalanced sleep and mood, and unhealthy eating, from the

consumption of calorie-dense, nutrient-poor, and high in added saturated fat and/or trans fat, sugar, or sodium.

Advertising aimed at children and adolescents has a high influence on the consumption of unhealthy foods and beverages. It can promote more positive attitudes, increase taste and consumption preferences, and greater consumption of unhealthy foods. Moreover, it induces a lower consumption of healthy foods overall in the diet which can lead to an increase in body weight.[3] Children exposed to food advertising on TV and advergames consumed between 53.2 and 60 kcal more than children exposed to nonfood advertising. This had an impact on the body mass index (BMI). [4]

European Governments are increasingly implementing statutory policies that restrict unhealthy foods and beverages marketing to children. Policies show variability regarding the foods and beverages they include in the restriction, in which ages are protected and communication channels and marketing techniques are covered. Nevertheless, the intake of unhealthy foods continues to increase being marketing techniques one of the associated factors. The interested ndustries invest on a high budget with the aim of reaching the younger population through attractive advertisements and marketing strategies.

Eleven evaluations of policies in four different countries found small or no policy-related reductions in unhealthy foods and beverages advertising. That was due to marketing shifting to other channels or venues. [5] Moreover, voluntary television marketing restrictions have been implemented in some countries, and studies show that television restrictions are generally not respected, as well as monitoring being challenging. [6]

Among the policies implemented at the European level, the UK government has announced new rules to regulate advertisements, both online and on TV before 9 pm, related to unhealthy foods and beverages.[7] The regulations will use the Nutrient Profiling Model (NPM), introduced/developed in 2005and revised in 2018, to assess the dietary quality. The UK NPM consists in a score system which enables to classify foods and beverages to an overall score that determines whether they can be advertised to children. The revised profile includes an 8% less of foods passing the model. Unfortunately, to date, it was maintained a co-regulation with voluntary target of enterprises on these codes. In 2019, it was found that almost half (47.6%) of all food adverts broadcasted over the month on several channels were for less healthy foods and beverages . This rises to a nearly 60% during the 6 pm and tje 9 pm slot. Therefore, it is clear that the current co-regulation failed.

In France, a law from 2016 restrictedany commercial in public television programs and websites aimed at children under 12y. This applies to all advertising including unhealthy foods and beverages. In non-public television channels, restrictions are also applied in relation to the advertising foods and beverages. All television advertising unhealthy foods and beverages, both addressed to children and adults, must be accompanied by a “healthy” message based on the institute's nutrition education principles. The dietary quality is assessed by the last version of the French Nutri-Score.

In Portugal, since 2019, restrictions on unhealthy foods and beverages have been applied, both in online and audiovisual channels, in the time slot that covers 30 minutes before and 30 minutes after the broadcast of programs for children, as well as in TV programs with a minimum of 25% audience under 16y or in movie theatres, publications, Internet, and mobile applications aimed at children of the same ages.

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Among the limitations of the Spanish proposal, it is worth mentioning the absence of a motion for specific evaluation on the effectiveness of the adopted measures. It would be advisable for the government to commission this evaluation to a consortium of research groups with expertise in this field.

It seems that these regulations based on specific nutritional profiles, which includes not only TV but all kinds of social media, with potential to influence the younger population, are more effective to achieve the proposed objectives of improving foods and beverages preferences, dietary habits, and finally contributing to reducing childhood obesity. It should also cover all types of media and timetable addressed to children, as well as consider an external evaluation by a neutral body and potential penalties to reduce marketing advertising that reach children.

In summary, the proposed measures are promising and can contribute to reducing excess weight if the aforementioned aspects are taken into account and are implemented along with other measures. To face the childhood obesity epidemic, the social inequalities reduction (and policies aimed at reducing childhood poverty, economic, and geographic access to healthy food), the impulse of school, family and community interventions, and the holistic approaches (including physical activity, sleep and psychological wellbeing promotion) should accompany the foods and beverages marketing regulations. Undoubedlyle, tackling the childhood obesity epidemic requires complex and nationwide strategies starting by effective structural measures as regulating marketing addressed to children.

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Obesity in children can have significant repercussions in adulthood. In addition to this, it is associated with a shorter life expectancy and quality of life deterioration along the life course.
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In Portugal, since 2019, restrictions on unhealthy foods and beverages have been applied, both in online and audiovisual channels, in the time slot that covers 30 minutes before and 30 minutes after the broadcast of programs for children, as well as in TV programs with a minimum of 25% audience under 16y or in movie theatres, publications, Internet, and mobile applications aimed at children of the same ages.[9]

In Sweden, there has been since the 1990s a general ban on television advertising for all kinds of products during programs aimed at children under 12y, which cannot be preceded or followed by advertising. [10]

In Spain, the Code of co-regulation of foods and beverages advertising aimed at minors, obesity prevention and health (PAOS Code - *Corregulación de la Publicidad de Alimentos y Bebidas Dirigida a Menores, Prevención de la Obesidad y Salud*), was adopted for the first time in 2005, and revised in 2011.[11] Currently, the government is working on a new royal decree that intends to apply the NPM, recommended by the WHO, to define which foods and beverages marketing contents could be addressed to children. The WHO-NPM consists of a total of 17 food categories and is based on existing models developed by

Norway and Denmark.[12] The rationale is that the models use 'food category' approaches, which are easier to adapt or modify rather than using a scoring system. The Spanish proposal bans advertising in all kinds of media, including TV, online platforms, influencers, and characters, aimed at children under 16y. Moreover, the change from voluntary participation of the industry to a governmental control with potential penalty effects is crucial.[2] They argue that the current rules on unhealthy food advertising are not going far enough to protect children from seeing a significant amount of unhealthy adverts, and do not account for the increasing amount of time children spend online. Similarly to the UK Government new rules, the Spanish regulation will be launched in early 2023 if it is finally approved. The current Spanish proposal is open to be discussed among the civil society and organizations, including food and beverage industries, despite the latter having only agreed partially with such proposal.

Among the limitations of the Spanish proposal, it is worth mentioning the absence of a motion for specific evaluation on the effectiveness of the adopted measures. It would be advisable for the government to commission this evaluation to a consortium of research groups with expertise in this field.

It seems that these regulations based on specific nutritional profiles, which includes not only TV but all kinds of social media, with the potential to influence the younger population, are more effective to achieve the proposed objectives of improving foods and beverages preferences, dietary habits, and finally contributing to reducing childhood obesity. It should also cover all types of media and timetable addressed to children, as well as consider an external evaluation by a neutral body and potential penalties to reduce marketing advertising that reach children.

In summary, the proposed measures are promising and can contribute to reducing excess weight if the aforementioned aspects are taken into account and are implemented along with other measures. Additionally, a reduction in social inequalities (and policies aimed at reducing childhood poverty, economic, and geographic access to healthy food) are needed. School, family and community interventions, and a holistic approach (including physical activity, sleep and psychological wellbeing promotion) should accompany the foods and beverages marketing regulations. Undoubedly, tackling the childhood obesity epidemic requires complex and nationwide strategies starting by effective structural measures as regulating marketing addressed to children.

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