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USO DE SMARTPHONES EN LA INFANCIA Y SEGUIMIENTO DEL CÓDIGO PAOS POR PARTE DE ANUNCIANTES DE ALIMENTACIÓN

Smartphones use in childhood and PAOS code follow-up by food advertisers

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Resumen

Enfermedades relacionadas con los hábitos alimentarios, tales como la obesidad, la anorexia o la bulimia, vienen aumentando en sociedades desarrolladas o en vías de desarrollo (Haas *et al*, 2010). El Ministerio de Sanidad y Consumo del Gobierno de España alertaba, en 2018, de las cifras que alcanzaba la obesidad (15%) y las EDDs[2] (12%): el grupo de edad de mayor incidencia es el de los menores de entre 6 y 12 años (McCabe *et al*., 2019). Esta cuestión atañe a los *media* (Levine & Murnen, 2009; Lara & Lara, 2018), que se configuran como educomunicadores, debido a la influencia que suponen en los niños al emitir ciertos valores, susceptibles de ser asumidos por estos (Carrillo *et al*., 2011). En este sentido, la aplicación del "Código de autorregulación de la publicidad y alimentos dirigida a menores, prevención de la obesidad y salud[3]" planteaba un cambio cualitativo y cuantitativo en la publicidad dirigida a niños. El objetivo de esta investigación es analizar la publicidad de alimentos emitida en dispositivos móviles dirigida a menores para comprobar si, efectivamente, este cambio ha sido real. Para ello se utilizó una metodología mixta con una muestra resultado de haber grabado durante 7 días (19 - 25 de agosto de 2019) la publicidad emitida por los

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[2] EDDs: Eating Disorders Diseases

[3] PAOS Code

anunciantes en el momento de interacción con los niños. En concreto: un análisis de contenido de la publicidad objeto de estudio, completada con una encuesta a niños y progenitores, además de un *focus group* realizado a progenitores.

Palabras clave: Alimentación; educomunicación; medios; niños; publicidad; salud; smartphone.

Abstract

Diseases related to eating habits, such as obesity, anorexia or bulimia, are on the rise in developed and developing societies (Haas et al., 2010). In 2018, the Spanish Ministry of Health and Consumer Affairs warned about the figures for obesity (15%) and DIDs (12%): the age group with the highest incidence is children between 6 and 12 years old (McCabe et al., 2019). This question concerns the averages (Lara & Lara, 2018; Levine & Murnen, 2009;), which are configured as educators, due to the influence they have on children by emitting certain values, which may be assumed by them (Carrillo et al., 2011). In this sense, the application of the "Code of self-regulation of advertising and food aimed at minors, obesity prevention and health" proposed a qualitative and quantitative change in advertising aimed at children. The aim of this research is to analyse the advertising of food on mobile devices aimed at minors to see if this change has been real. This was done using a mixed methodology with a sample of advertisers' recorded advertising for 7 days (19 - 25 August 2019) when interacting with children. Specifically: a content analysis of the advertisements studied, completed with a survey of children and parents, as well as a focus group with parents.

Keywords: Advertising; children; educommunication; food; health; media; smartphone.

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1. INTRODUCTION

We use the term 'epidemic' to refer to diseases related to eating disorders and poor eating habits, such as obesity, bulimia or anorexia nervosa. The increase in these diseases is an international reality. Even more so in the case of children under 12 years of age, whose figures are alarming: The Ministry of Health and Consumer Affairs has been providing data since 2006 and the World Health Organization (WHO -World Health Organization-) estimates that childhood obesity stands at over 14%, with indicators that overweight reaches figures of over 12%. Thus, the data found in the study carried out by Jiménez-Morales (2006, p. 246) raised questions such as child obesity tripled in Spain, ranking second among European countries in the prevalence of excess weight among children aged 6 to 12 during that period. However, since 2015, a reduction of 3 points in

overweight has been observed in relation to previous years, which would confirm a certain stabilisation, as well as a reversal of the trend (Ortega et al., 2015).

At the same time, it should be noted that there is a market where the possibility of finding a wide range of ultra-processed products is very high. This is exacerbated by the fact that recipients and potential consumers are the targets of an excessive amount of advertising stimuli, many of them aimed at minors, who are a more sensitive and vulnerable group (Del Mar Pàmies, Ryan & Valverde, 2016). And this, through the mobile communication medium par excellence: the smartphone.

It is true that the media are not solely responsible for the epidemic, clearly pointing to the food industry. But they are an important factor to consider. Because advertising can generate representations that imply unhealthy image patterns and behaviours (Carlson & Clarke, 2014; Elías, Jiménez-Marín & Silva, 2017), this can directly disrupt children's self-esteem and, with it, the construction of their own body image.

1.1. The media and the construction of body image

The influence of the media in general can be seen in studies carried out worldwide by authors such as McCabe and Ricciardelli (2005), or Skemp-Arlt et al. (2006), which show that half of children between 5 and 12 years of age are dissatisfied with their physical appearance. As McCabe et al. (2019), Mancilla et al. (2012), Skemp-Arlt et al. (2006), McCabe & Ricciardelli (2005), Phares et al. (2004), Davison et al. (2003), Hendy et al. (2001) or Abramovitz & Birch (2000) state, around 40-50% of children aged 6-12 years feel dissatisfied with their physical appearance. In fact, scientific evidence (De Jans et al., 2019) shows that this dissatisfaction affects both genders, but the type of distortion differs by gender. Typically, girls desire a slimmer body, while boys desire a more muscular physique with minimal body fat. Therefore, we need to pay close attention to these gender differences if we want to develop specific body image content (Bird et al., 2013; Frederick et al., 2005).

In this sense, it can be affirmed that minors are the social group most sensitive to the negative consequences of the media (Charry, 2014), being, to a large extent, dependent on the consumer market (INTEF, 2005). Thus, numerous studies consider that reducing exposure to media content, especially children's advertising (Smith et al., 2019; Folkvord et al., 2016; Matthes & Naderer, 2015), is beneficial for girls and boys, for their physical and mental health. Moreover, much of the research on body image disorders points directly to the media as a producer of physical stereotypes and thus, among others, the manifestation of eating disorders (Botta, 1999; Harrison & Cantor, 1997; Myers & Biocca, 1992; Stice et al., 1994; Hamilton & Waller, 1993). Therefore, it is emphasised that minors have fewer cognitive resources to correctly decode the messages received by the media (Kapferer, 1995; Unnikrishnan & Bajpai, 1996; McLean et al., 2013; Fernández & Díaz, 2014;).

According to the Social Learning Theory, through exposure to media content related to social attractiveness, the person (children and adolescents in particular) learns which

models of physical appearance are socially rewarded, the social expectations of what is considered beautiful versus what is considered ugly, and the consequences of not being attractive. Cultivation Theory (Gerbner, 1998) asserts that social reality is shaped by extensive and cumulative exposure to media messages. This theoretical model assumes that individuals develop beliefs, attitudes and expectations about the real world based on what they see and hear on television, video, movies, magazines, etc. Subsequently, they will use these beliefs, attitudes and expectations to make decisions and adopt behaviours in real-world situations. Thus, within the framework of a study on body image and media content, Cultivation Theory posits that media messages are agents of socialisation about the concepts of male and female beauty and other aspects of body image. This is particularly true for children's audiences, given that children's programming uses messages that bring into play strong emotional attachments.

Parallel to these stereotypes, the same media launch other types of contradictory messages, often promoting unhealthy or high-fat and high-sugar behaviours and products during children's programming. That is: ultra-processed food products, reward culture as a reward for eating a large amount of food, etc. This issue is highly surprising as there are, in fact, two sections completely differentiated by media strategies: content showing children happy thanks to the consumption of sugars and fats in the form of pastries, sweets or fast food, as opposed to content showing happy, slim adults, basically at the mercy of low-calorie food consumption. This dichotomy ends up influencing children who, at an early age, reject their body image and start restrictive diets that can lead to eating disorders (Jiménez-Morales, 2006). On a theoretical level, the European Union's 'Television without Frontiers' directive (89/552/EEC and amendment 97/36/EC) specifies that "television advertising shall not cause moral or physical harm to minors" (art.1) and provides that member states shall monitor television broadcasts so that they do not include any programmes "which might seriously impair the physical, mental or moral development of minors" (art. 22). Accordingly, both television programming and advertising content should avoid depicting unhealthy lifestyle behaviours and patterns of beauty.

1.2. The PAOS Code

The current situation has brought with it strategies to prevent childhood obesity and eating disorder-related illnesses, as well as the strengthening of tactics to help increase healthy lifestyles. However, regulations aimed at prevention are rather limited, both in the United States and in Europe, the geographical areas of reference on this issue. In both territories there is some regulation, but it is quite relaxed in relation to compliance with their codes for broadcasting images in the media and promoting other healthy lifestyle initiatives.

Following Sánchez (2016), we observe that, in order to promote healthier habits, different strategies have been implemented, such as reducing taxes for families participating in sports activities (Canada) or the use of levies and quotas to discourage unhealthy behaviour in employees who exceed certain waist circumference levels (Japan). Initiatives have also been promoted to increase the variety and quality of fruit

and vegetable consumption (USA or UK) or the regulation of access to foods and beverages high in fat, sugar or salt in schools and the control and regulation of food and beverage advertising by self-regulatory codes (Spain) or specific regulations to influence food and beverage purchasing decisions such as specific labelling with traffic light colours (UK), etc. and very few companies comply with such regulations correctly. This shows that self-regulation itself is not effective and that other measures should be taken to ensure that minors are truly protected from abusive campaigns by advertisers, such as the adoption of a bylaw system using a nutrient profiling model to restrict exposure of unhealthy products or imposing a legal ban on any type of food and drink advertising aimed at minors.

At the European level, the European Food Safety Authority (EFSA) is an independent body charged with advising governments on the existence of food risks and emerging epidemics or pandemics. Its objective is to protect public safety through actions such as the promotion of scientific research, advice, dissemination and the development of actions on food safety.

In the case of Spain, the Spanish Agency for Consumer Affairs, Food Safety and Nutrition (AECOSAN) provides co-regulatory support to the EFSA. Attached to the Ministry of Health, Consumer Affairs and Equality, its main tool is the Code for the Co-regulation of Food and Drink Advertising Aimed at Minors, Prevention of Obesity and Health (PAOS Code), framed within the overall state strategy for social welfare of the Spanish Government, a provision that affects children in the promotion of a healthy lifestyle and diet.

The PAOS Code was reinforced in 2009 through a collaboration agreement with the main television operators in Spain so that broadcasters undertook to require that food and drink advertisements aimed at children under the age of 12 (or broadcast in enhanced child protection slots) comply with the standards set out in the PAOS Code. In 2012 the Ministry of Health, Social Services and Equality and AECOSAN had to sign up to a new PAOS Code, where the Spanish Federation of Food and Drink Industries (FIAB), the Association for the Self-Regulation of Commercial Communication (Autocontrol de la publicidad), the distribution sector (ANGED, ASEDAS and ACES), the hotel and catering industry (FEHR) and the restaurant industry (FEHRCAREM) joined in.

This update of the PAOS Code had the effect that the code now also applies to advertising broadcast on the internet and on mobile devices, which are where children's audiences have been growing the most in recent years (INFOADEX, 2019). Similarly, the age of application is extended to 15 years.

A study conducted between 2008 and 2012 showed non-compliance with the PAOS code increasing from 50% in 2008 to 88.2% in 2012. In the enhanced protection band, non-compliance with the code rose from 43% to 86%.

And it is this aspect that prevails in this research: the use of personalities known to children, celebrities or known to them, in which this non-compliance has increased the

most, rising from 5.4% to 25% (León-Flandez et al., 2012). In a study carried out by Hastings et al. in 2003, it could be seen how advertisements were inserted within the children's time slot and that they used unconventional advertising techniques such as sponsorship, handing out samples or gifts when buying products, such as toys, for example. Subsequently, the EU's own research showed that children who did not watch TV at lunchtime were less likely to be overweight than those who did (Vik et al. 2013).

Multimedia groups have also become aware of children's health issues and some conglomerates, such as A3Media (in the case of Spain), ran a campaign called 'El Estirón' in 2012 that targeted children with childhood obesity. The campaign consisted of advertisements on the channels: Antena 3, Neox, Nova and Nitro and on the radio stations Onda Cero and Europa FM. Some famous personalities participated in the campaign and gave advice on how to lead a healthy life. In our opinion, as it was an isolated action and without a public, political, social and family context that reinforced it, the possible positive consequences of this action were dissolved.

1.3. Use of mobile devices by minors

Certain direct links can be established between the stereotypes portrayed by advertising, on the one hand, and the ability of advertising to influence society, on the other. And, more specifically, in the ability to influence children, who are highly susceptible to being persuaded by such influences. As a result: a high dissatisfaction of girls and boys with their bodies. As a consequence of this result: physical and psychological disorders.

Today we have a wide variety of permanently connected content, and devices capable of supporting it (Perez, 2008). They are accessible anywhere and at any time, through different platforms.

Today, it can be seen that among children under fifteen years of age, the most widely consumed medium is television, a conventional medium, whose content is viewed during their leisure time.

In fact, "in front of the new idealised, loved, envied, but also feared digital spaces, there is the permanent figure of television, which remains firmly in the collective imagination as the familiar space of leisure" (Gewerc et al., 2017, p. 178). However, immediately afterwards, we find that the second most consumed media by minors is the internet, mainly via smartphones (INFOADEX, 2019), with no consumption of the press or conventional radio being detected among this type of audience (Navarro et. al., 2012). As they are digital natives, the Internet is present in their daily lives.

In the specific case of under-12s, television competes, on a large scale, with the smartphone, and not so much with the desktop and laptop which, for this age group, is being relegated to the background. From the age of 12 onwards, values change (INFOADEX, 2019). In fact, the penetration level of mobile devices at the age of 9-12 reaches a relative value of 72.7%, according to data from AIMC (2017). This percentage

increases if we widen the age range. In this sense, Bringué & Sábada (2011) report that the mobile terminal reaches percentages of 83% in children over the age of 10.

We are, therefore, faced with a generation that has taken over the communicative culture based on the use of digital and mobile technologies, which are increasingly more accessible and universal (Brigué & Sábada, 2011). They have access to all types of screens, with a large percentage having regular access to the Internet.

2. OBJECTIVES

In the international food sphere, the level of food safety has never been as high as it is today, yet food-related health problems continue unabated.

In 2001, the WHO first coined the term "Globesity" to define the seriousness of the global obesity pandemic. In this regard, predictive models used by the UK Foresight Report have suggested that 55% of the UK population could be obese in the UK by 2050.

Estimates of the prevalence of obesity and/or overweight in the OECD countries[4] and other emerging countries in children aged 5-17 years give mean values of around 22% (Sanchez, 2016). One in 5 children is obese in a large number of countries, with one in 3 in countries such as Greece, the USA and Italy. In contrast, overweight affects less than 10 % in countries such as China, Korea or Turkey.

The question then arises: Is it permissible to subject a weak and immature group such as minors to such a large amount of stimuli? Why do we not work to optimise certain codes and legislation in a rigorous manner? Whether for capitalist doctrine or for other related reasons, advertising agencies and other marketing systems fix their target market on children, targeting them as prescribers and consumers, although not necessarily as buyers. This practice is not merely an exaltation of the norm among economic principles, but is the fruit of utilitarianism, where healthy eating and the educational factor are put before packaged, ultra-processed food that is easy for the general public to use. In this way, the attraction of children's food brands is based on the behavioural psychology of young children.

This situation gives rise to a certain obligation on the part of the authorities to regulate self-compliance with certain ethical standards, as well as a legal obligation to take action against companies that are unfair to consumers.

[4] OECD: Organisation for Economic Co-operation and Development, comprising, in 2019: Australia, Austria, Belgium, Canada, Chile, Colombia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.

The aim of this research is, specifically, to analyse and evaluate food advertising on mobile devices aimed at minors, before and after the adoption of the code, in order to, by way of specific research objectives or purposes, seek to:

1. Evaluate the monitoring of the PAOS code by food advertisers in relation to the advertising pieces observed in the study period.
2. Derived from the above, to assess the existence of professional ethics in this advertising sector.
3. To draw up a list of the main advertisers of food products that target children under 12 through apps, interactive games or advertising in traditional formats.
4. To highlight, through specific data, the influence of advertising of children's food products on the purchase intention of parents and carers after observing the advertising.

3. METHODOLOGY

The methodology used is a mixed one, using a content analysis complemented by a series of interviews and a focus group.

In relation to the content analysis, the sample was obtained by recording advertising content broadcast by advertisers for 7 days (week of 19-25 August 2019), inserted in content aimed at children.

Although there are currently protected hours on television (from 6:00 to 22:00), this does not apply to advertising on mobile devices, whose parental control must be activated by the parents or carers of minors. It is for this reason that the recordings took place at different times throughout the day, comprising the time slots between 10:00 and 21:00.

The method of analysis was based, on the one hand, on a content analysis of food and drink advertising aimed at children under 12 on mobile devices in Spain. Specifically, we analysed advertising aimed at minors through Musical.ly, Snapchat, YouTube, Instagram and BabyTV App. The criteria for choosing these apps and pages was basically the audience (IAB Spain, 2019).

This content analysis basically aimed to detect the main advertisers and brands that frequently use advertising on these apps, portals or social networks.

The advertisements were classified according to their compliance with the PAOS Code and its ethical standards in three different levels: a) compliant; b) non-compliant; and c) uncertain (León et al., 2017). Using this classification, and in relation to its visualisation by the researchers, the sample was typified and the data tabulated. Compliance with each standard was assessed by considering that they were fully compliant with the PAOS Code when none of the requirements or standards were circumvented, i.e. they were considered non-compliant if more than 50% of the standards internal to each standard were not met. Those whose compliance lacked the

consensus of external, impartial researchers and experts were considered to be of uncertain compliance.

On the other hand, and after informed consent from parents, in accordance with the Codes of Conduct for the processing of personal data in Market Research (2018) at a quantitative level, a total of 524 children between 5 and 12 years of age and mothers/parents of minors of the same ages were surveyed. Specifically: 209 children and 315 adults, being parents or caregivers. This was achieved thanks to the Google Forms tool. On the other hand, data were obtained from the application of a qualitative methodology based on a focus group carried out with 8 mothers and 2 fathers.

4. RESULTS

4.1. Results of the content analysis

During the 7 days that the sample collection took place (11 hours per day), a total of 77 hours were counted where a total of 314 advertisements directly targeted at children were found. Of these, 73 were food or drink advertisements.

Of the 73 advertisements that made up the total sample directly related to the object of study, 22 were the total advertisers. Thus, the brands responsible for this advertising were (in order of appearance): 1) Teddy Bears; 2) Babybel; 3) Fanta; 4) Danone; 5) Danonino; 6) The Laughing Cow; 7) Prince Cookies; 8) Chips Ahoy; 9) Choco Flakes; 10) Haribo; 11) Caffeine-free Coke; 12) Danup; 13) Telepizza; 14) Hero baby; 15) McDonalds; 16) Donuts; 17) Burger King; 18) Tosta Rica; 19) Puleva; 20) Oceanix; 21) Dinosaurus; and 22) Sunny Delight.

Assessing the level of compliance with the PAOS code, and although we represent it graphically in the following table, the summary is very basic: None of these brands complies with the PAOS code at 100%. This is shown in table 1:

Table 1.
Level of compliance with the PAOS Code
¶

Nº	Brand	Level of compliance
1	Ositos	Not in accordance
2	Babybel	Uncertain
3	Fanta	Not in accordance
4	Danone	Uncertain
5	Danonino	Not in accordance
6	La vaca que ríe	Uncertain
7	Galletas Príncipe	Not in accordance
8	Chips Ahoy	Not in accordance
9	Choco Flakes	Not in accordance
10	Haribo	Not in accordance
11	Coca Cola sin cafeína	Not in accordance

12	Danup	Not in accordance
13	Telepizza	Not in accordance
14	Hero baby	Not in accordance
15	McDonalds	Uncertain
16	Donuts	Not in accordance
17	Burger King	Not in accordance
18	Tosta Rica	Not in accordance
19	Puleva	Uncertain
20	Oceanix	Not in accordance
21	Dinosaurus	Not in accordance
22	Sunny Delight	Not in accordance

Source: *Own elaboration (2019)*

4.2. Survey results

A brief survey was administered to record the level of recall and recognition (Sánchez, 1999) of brands, products and advertising content, in order to analyse the possible advertising effectiveness. In this sense, the children surveyed were asked if they had visited any of the social networks, applications or portals referred to (Musical.ly, Snapchat, YouTube, Instagram and BabyTV App) in the last 7 days. Out of the total of 617 respondents, 524 had seen any of the marked apps and, consequently, the advertising inserted in them.

The survey was answered by 209 children under 12 years of age (with informed consent from parents and carers) and 315 adults, all parents.

Among the most relevant data, the following stand out:

- All 209 children and 315 adults recognised the advertising brands perfectly when shown the packaging or the brand was mentioned to them.

- Of the total number of respondents, 24.04% remembered the brand or product without prior external stimulus. Specifically, the breakdown was as follows:

    - 73 out of 209 minors (34.92% of minors.
    - 53 out of 315 adults (17.09% of adults).

- In relation to purchase intention, 100% of the 209 children expressed their desire to eat or drink any of the foods or drinks shown in the advertisement; however, when the same question is answered by parents, the percentage drops significantly, giving data such as that of the 315 adults, only 14 (4.44%) had no intention of buying or consuming any of the products shown. This may be logical insofar as the level of educational attainment is much higher; however, what is striking about the data is that, apart from these 14 respondents, 198 (62.85%) made some of the categories coded as "uncertain" their first choice for purchase, consumption or ingestion, as opposed to those coded as "non-conforming".

The brands most highly rated by parents are, in order:

1. Puleva; 2. Danone; 3. Danonino; 4. Danup; 5. La vaca que ríe; 6. Minibabybel.

4.3. Results of the focus group

In relation to the amount of time children spend in front of media, all eight people at the table admitted that children spend too much time in front of technologies; however, when asked to quantify how much time they considered appropriate for children to spend in front of a smartphone, the answers varied considerably. Thus, compared to "10 minutes a day", in the case of R. O. J., mother of two girls, aged 7 and 9 respectively, we found "2 hours maximum", which was answered by the father of two children, a girl aged 5 and a boy aged 6. In between these bands, there were intermediate answers that were more in favour of moderation "without counting the minutes exactly", and "being aware that exposure to mobiles is there and we cannot avoid it". Or answers such as "I don't get along very well and I don't like it, but a little time to let me breathe doesn't hurt either of us".

In any case, we establish one of the central points of importance of all the answers in the fact that parents, when referring to the time that minors spend with a device, do so alone, and not accompanied by a parent.

In this sense, and referring to the next block, all the participants in the focus group were aware that minors receive advertising impacts, but in all cases, the impacts received were thought to be minor. Thus, when it was stated that during one week an average of more than 300 impacts were received, some of the immediate comments were along the lines of "from now on I won't leave my mobile phone with them" or "I had no idea of such an amount". But, in addition to this, knowing that 73 advertisements were directly influencing their children's diet, the reactions were diverse: Thus, 7 of the people in the focus group understood that it was normal and that it was not about foods particularly harmful to health, with some specific incidence: "Coca Cola is not very good... but without caffeine, drinking it once a week does not seem very bad to me". Or "Yoghurts are very good, it has always been said". The truth is that only 3 of the participants questioned the ingredients, the amounts of sugars, colourings and preservatives, as well as the concept of healthy eating as a basis.

As a final result of the approach, 4 of the participants admitted that they bought many food products due to pressure and incitements from their children, even when they did not agree. And even in one case:

One time you say no, another time too. But when the biscuit comes with the Paw Patrol, and your kids see it over and over again in advertising, how do you tell them you won't buy it for breakfast? Besides, they don't even want to see the fruit. And if they go to school on an empty stomach, or if they go to school with the biscuits, then the Paw Patrol!

In all 10 cases they admitted that many of the food products they bought were made directly through advertising (either the original brand or a substitute private label) or at the express request of their children who, on many occasions, "of course, see it in advertising and then ask you". In this sense, the fourth objective is achieved by

approaching the influence of advertising of children's food products on the purchase intention of the interviewees after observing the advertising.

5. CONCLUSIONS

How are the risks, threats and opportunities of the Internet and smart screens currently assessed using different models and theoretical approaches? What aspects not included in traditional educational and media designs should be incorporated and are not currently present? Should more work be done on nutrition in the school and family environment? Should food advertising be banned? Does the PAOS Code work?

The content of food advertising aimed at children not only violates and infringes the PAOS Code (thus leading to the existence of dubious professional ethics in this advertising sector), but also goes unnoticed by the target audience (consumers, minors, shoppers, parents). In this way, the levels of recall and recognition are very high, leading to an increase in the likelihood of purchase intention and, consequently, consumption, despite the fact that these are food products whose ingredients and components are clearly identified as harmful or unhealthy by the World Health Organisation.

The scope of this research covers both economic and health aspects. Thus, breaking the standards of the codes may lead to an increase in the share of sales of children's food products, while at the same time affecting public health, insofar as it may generate a physical and psychological predisposition that favours the development of diseases and/or situations of fragility in children's health, creating a predisposing base for diseases such as obesity.

The implications can be considered along three lines: on a legal level, it means impunity for the violation of a legislative code focused and designed, precisely, to protect a group with special legal protection, insofar as they are susceptible to influence: minors; at a social level, it means that a particularly weak public, susceptible to becoming a prescriber as well as a consumer, is exposed to the mercy of advertising strategies and tactics without reasonable ethics; and, finally, at an ethical level, it exposes an economic sector, the food industry, which, being aware of the infringement and non-compliance with the code, decides to violate it in order to achieve its business objectives.

The projective approaches of the study focus on the visibility of the causes and effects of a situation which, while capable of transformation, must, to do so, undertake evolutions on several fronts: regulatory, social and educational, among others. In this regard, it is worth mentioning, as a derivation of this situation, the news that appeared in the media in October 2020 indicating that the Ministry of Consumer Affairs of the Spanish Government will reform the PAOS Code by prohibiting the advertising of unhealthy foods aimed at children under 15 years of age (Molins, 2020). This development in self-regulation highlights the conclusions reached in the Aladdin Study 2019 (AESAN, 2020), which supports the ideas, with other studies, of the conclusions and results provided in this study.

In this sense, and in light of the data extracted, we can affirm that, despite the existence of a strong code, within a global strategy (NAOS), its application is not proving effective, probably due to the laxity of its practice, as well as the virtual absence of sanctions that penalise the violation of the principles contemplated in the PAOS code. It is therefore necessary to make the situation and consequences of the ineffectiveness of the current PAOS code visible with data.

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