

Regulation of “Unhealthy Food” Advertisements According to Health Care Workers

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Abstract

The proportion of food advertisements (particularly advertisements of foods with high level of fat, sugar and/or salt) is high. The advertised “unhealthy” foods are most popular in segment of children. We can state that these advertisements influence the children’s eating habits and their food consumption and contribute the rising cost of childhood obesity. There are several initiations to protect children. According to health-care workers’ opinion in Hungary is the childhood obesity is dangerous and e.g. fat tax can contribute to reduction of unhealthy foods’ consumption. The opinion of experts is clear; redefinition of advertising regulation is needed in case of foods with high level of fat, sugar and/or salt.

Key words: advertisements, free gift, fat tax, childhood obesity, regulation.

JEL classification: I 15, M 39

Introduction

Nowadays we are so successful in influencing children, that we cannot believe what we see. Several authors mention the “nagging factor” how children can influence their parents when they make purchase/brand decisions. (Centre for Science in the Public Interest, 2003; Marquis, 2004; Berry, 2008). 40.3% of the children asked their parents to purchase the goods that they saw on the television advertisements (Arnas, 2006). Marketing uses its wide, subtle toolkit, among others sales promotion tools (brand licensing, using celebrities, free gifts etc.) Kelly et al. has stated that across all sampled countries (13 research groups in Australia, Asia, Western Europe, and North and South America), children were exposed to high volumes of television advertising for unhealthy foods, featuring child-oriented persuasive techniques. Because of the proven connections between food advertising, preferences, and consumption, our findings lend support to calls for regulation of food advertising during children’s peak viewing times. Food advertisements composed 11% to 29% of advertisements. Noncore foods (high in undesirable nutrients or energy, as defined by dietary standards) were featured in 53% to 87% of food advertisements, and the rate of noncore food advertising was higher during children’s peak viewing times. Most food advertisements containing persuasive marketing were for noncore products (Kelly et. al, 2010). The real problem is that foods containing high level of salt, sugar and fat are promoted to young people contributing to childhood obesity. Considerable part of the advertisements demonstrate foods with high level of fats, sugar and/or salt that is rich in energy but include low level of nutritive values and important nutritive materials (Linn, 2008). According to Arnas (2006) the proportion of food advertisement (healthy and unhealthy food

together, average) is 45.6%. More than 75% of advertisements of games, flakes, candies and snacks is scheduled on Saturday morning, primarily on the channels for children (Macklin, 2003). Batada et al. (2008) write a paper in this theme. The title of the paper is: *Nine out of 10 Food Advertisements Shown During Saturday Morning Children’s Television Programming Are for Foods High in Fat, Sodium, or Added Sugars, or Low in Nutrients.*

Childhood and juvenile obesity as a social phenomenon is not just a negative effect on someone’s health stable, but also a serious and versatile national economic level problem. It is more recognized by the older children (10–12 years of age) that advertisement does not communicate the full truth all the time. Children express their suspense, but the level of their knowledge and the sceptical view is not enough. It is a serious problem that an average American child (but the statement is also true in Hungarian comparison) spends roughly 4 hours in front of the television screen every day (Federal Communications Commission, 2003; Kunkel, 2001). They watch more than 40,000 television advertisements in a year (Strasburger, 2001, Kunkel, 2001). It means about 5 hours of watching clear advertisement weekly (Lindstrom, Seybold, 2003). Mukherjee (2007) showed that advertisements have three types of effect on children’s tender minds—cognitive effect, attitudinal effect and behavioral effect. Children readily get attracted to the advertised products due to their observable features, but their consumer knowledge of the same does not exceed beyond the surface level. It is fact, that children recognize the trademarks over the age of 3, but the beginning of the brand loyalty’s forming may start even from the age of 2 years (Fishers, 1991, McNeal, 1992). Secondary surveys confirm that a large percentage (20%) of children less than 3 years of age insists on brands already and influ-

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ences their parents on its purchasing. Children aged between 4-5 years insist on 20-30 brands already. They identify products from the melody of the advertisements and the logo (Látos, 2005). A number of research have shown how manufacturers work hard to enhance the “nag” factor when it comes to point of making decision on consumer choices (Centre for Science in the Public Interest 2003; Marquis 2004; Berry, 2008). 20-40% of the purchases would not be made if the children would not nag to their parents, such as visits to the amusement park. 30% of parents buy the toothpaste their kids choose and 45% buy a brand of spread such as butter, jam and health drinks, which their children select (Singh, Kaur; 2011). The nagging factor has strong influence on sales of foods with high level of fat, salt and/or sugar (Pine, Nash; 2007). The 2002 World Health Organization (WHO) review noted that because of the nagging factor children have a major influence on parental buying decisions. Family food decision making is often a joint activity and children’s active participation among other things determines the influence they wield (Noergraad et al., 2007). The WHO review also argues that the younger generation is targeted in order to encourage a culture of regular and frequent soft drink and fast food consumption and to promote habits that will persist in adulthood (Hawkes, 2002; Matthews. 2005). Arnas agrees with this statement: Children ask their parents to buy the goods they see on television advertisements both while watching television and while shopping. Television advertisements especially affect young children’s unhealthy food consumption (Arnas, 2006). The power of nagging factor is especially strong when the pictures of fictional characters, pop stars, bands, etc. can be seen on product packages. The phenomenon is known as brand licensing. It is often used in marketing activities, e.g. giving free gifts. It is really hard to explain to a child that a product marked with Sponge Bob, Hello Kitty or Spiderman is not better than any other product without a special logo. Burger King has been spending over 100 million dollar per year on a series of promotions tied to new movies (e.g., Aladdin, Toy Story, The Hunchback of Notre Dame, Lord of the Rings, Star Wars) that are aimed primarily at children (Thompson, 2003). As we can see brand licensing is a critical problem, hence several countries deal with the scope of it, trying to find legal solution for protecting their children. Role of government is differ from country to country, but one thing is common, all of them trying to do something against this problem. Latter countries and states are quite strict in regulating brand licensing and show best practices.

Katke (2007) examined the link between television advertising and its influence on child health and family spending. Nearly every aspect of children’s lives has been adversely affected by recent trends in advertising and marketing. Research links advertising to increased violence, obesity and eating disorders in children. Obesity and problems caused by obesity contribute to the decrease of social and individual welfare; also the drastic increase of health expenditures caused by overweight and obesity must be mentioned. It can be stated, that obesity is becoming a serious problem nowadays. Today the risk of obesity is a bigger problem than smoking or alcoholism. It means that the average health care cost of overweight persons is higher by 42%

than normal bodyweight ones (Finkelstein, 2004). It means that 17.5 million overweight children live in the EU (Fülöp et al., 2009). Centers for Disease Control and Prevention published in 2004, that 64 percent of U.S. adults are either overweight or obese (CDC, 2004). The increased rate of obesity is alarming, given the association between obesity and many chronic diseases, including type 2 diabetes; several types of cancer, musculoskeletal disorders; sleep apnea (Must et al., 1999; Field et al., 2001; Visscher, Seidell, 2001). Children’s eating habits and their food consumption have direct relations with obesity, diabetes, cancers, hypertension and coronary heart disease. Television advertisements directly affect children’s eating habits and their food consumption (Arnas, 2006). The responsibility of marketing could be questionable from this point of view (Hastings, 2003). A professor’s study responds to the question unambiguously with his method and his statements: there is a lot of food advertising for children; the advertised diet is less healthy than the recommended one; children enjoy and are engaged with food promotion; food promotion is having an effect, particularly on children’s preferences, purchase behavior and consumption. Boyland et al. (2011) advised the systematic monitoring and continuous evaluation of the effectiveness of regulations in order to reduce food advertising to children on television in the United Kingdom. In Sweden all advertising ‘aimed’ at children under the age of 12 years is banned, as are advertisements before or after children’s programmes (Caraher, 2005).

Importance of Children’s Protection

Though parents try to raise competitive customers, they cannot follow every step of their children. Hence the importance of the children’s legal protection is not questionable. Member states of the UN accepted the Convention on the Rights of the Child in 20 November 1989. Important statements of the Convention are e.g.: “*Convinced that the family, as the fundamental group of society and the natural environment for the growth and well-being of all its members and particularly children, should be afforded the necessary protection and assistance so that it can fully assume its responsibilities within the community (...)* Bearing in mind that the need to extend *particular care* to the child has been stated in the Geneva Declaration of the Rights of the Child of 1924 and in the Declaration of the Rights of the Child adopted by the General Assembly on 20 November 1959 and recognized in the Universal Declaration of Human Rights, in the International Covenant on Civil and Political Rights (in particular in articles 23 and 24), in the International Covenant on Economic, Social and Cultural Rights (in particular in article 10) and in the statutes and relevant instruments of specialized agencies and international organizations concerned with the welfare of children (...) Council of Europe (1996) suggest that protection should start at school that would enable for the whole society to get the appropriate information and to profit from it, and to provide information about legal legislation, means of actions offered by public authorities, consumer associations and other private bodies.

In **Canada** in Quebec province it is prohibited to advertise to children. It is true that protection of children is the main reason for that, but we should not forget the fact that it is also limiting the right for free expression, even though children are the most

vulnerable to commercial manipulation. (Simson, 2004) Among other issues brand licensing is regulated by The Broadcast Code for Advertising to Children. Main points of the Code:

- » Puppets, persons and characters (including cartoon characters) well-known to children and/or featured on children's programs must not be used to endorse or personally promote products, premiums (free gifts) or services. The mere presence of such well-known puppets, persons or characters in a commercial message does not necessarily constitute endorsement or personal promotion. Puppets, persons and characters well-known to children may present factual and relevant generic statements about nutrition, safety, education, etc. in children's advertising.
- » In children's advertising which promotes premiums (free gifts) or contests, the product must receive at least equal emphasis. Promotion of the premium or contest must not exceed one-half of the commercial time.
- » The words "new," "introducing," "introduces" or similar words may be used in the same context in any children's advertising for a period of up to one year only.
- » Written, sound, photographic and other visual presentations must not exaggerate service, product or premium characteristics, such as performance, speed, size, colour, durability, etc. (The Broadcast Code for Advertising to Children, 2010).

In **Romania** several restrictions were accepted in the regulation of the advertisements on 22 February 2007, particularly in the protection of children and young people. The regulation may serve as precedent.

- » In the advertisements presenting food products is not allowed the appearance of well-known stars, known actors, sportsmen, doctors, or cartoon characters except for basic foods, fruits and vegetables. The lawmaker would like to achieve that consumers make decisions on the basis of the quality of promoted product and do not decisions on the basis of recommendation of well-known persons. So the recommendation of well-known persons will not be dominant.
- » In the advertisements presenting food products is not allowed the association between food products and non-food products such as games, images, logos, etc. An advertisement on children can not only focus on the free gift. So the lawmaker restricted the influencing effect of brand licensing.
- » Advertisers have to warn consumers between 6 – 22 hours if advertisements containing promotion of foods with high level of fat, salt and/or sugar. They have to inform consumers in every hour that the accumulation of fat, salt and sugar content in the human body is not healthy. Only the restricted salt, fat and sugar consumption protects the health condition.
- » The limit of childhood is not 18 years than 16 years of age in Romania
- » (Decizie nr.194 din 22 februarie 2007 pentru modificarea Deciziei nr.187 din 3 aprilie 2006 privind codul de reglementare a conținutului audiovizual.).

California county of USA in 2010 became the first to ban toys from fast food kids' meals high in calories, fat, salt and sugar. The ordinance will ban restaurants from giving away toys with meals that have more than 485 calories. Supervisors voted 3-2 to ban the plastic goodies as promotions. The restriction breaks the link between unhealthy food and prizes. The reason, that the cost of obesity manifests itself in the government budget, but the profit is realized by the manufacturers of food with high level of fat, sugar and/or salt. The ordinance ban restaurants from giving away toys with meals that have more than 485 calories, more than 600 milligrams of sodium, more than 35 percent of total calories from fat or more than 10 percent of calories from added sugar. It would also limit toy giveaways on single food items with more than 200 calories or more than 480 milligrams of sodium (Bonisteel, 2010).

High consumption intensity of foods with high level of fat, sugar and/or salt drew attention to the legal boundaries of persuasion. In Connection of communication to young people we have to reckon on 2 limiting factors (Advertising Law, Code of Advertising Ethics) in **Hungary**, these factors only use soft definition and shaping, and in several cases adherence is voluntary. The regulation in Hungary is not good or bad. It is similar to other countries. By virtue of my desk and field researches it can be stated that self-regulation mechanism of advertising (particularly in case of foods with high level of fat, sugar and/or salt) vocation failed in the case young people around the world.

Instead of sloppy definitions in Advertising Law, unambiguous appearance is needed. Omission of this can be a source for health problems especially in the market of foods containing high level of salt, sugar and fat. Several countries took steps to restrict regulation in case of foods containing high level of salt, sugar and fat. Importance of the problem is not questionable. UN Special Rapporteur on the right to food, Olivier De Schutter have said: "One major source of obesity in the US for example which spends today around \$180 billion just to combat type 2 diabetes that are the result of overweight and obesity. So we have to get the prices system right. It is simply not acceptable that poor people are unable to afford quality diets. That they develop illnesses as a result of not being able to afford healthy types of food." (Schutter, 2012.)

The National Association for Consumer Protection in **Hungary** initiates to ban the marketing of unhealthy foods to children. The Association would like to join to the initiation of Consumers' International (CI). The initiation clearly states that advertisements should be prohibited to children in case of foods which containing high calorie, fat and sugar content. It states that the restriction should be extended to the electronic and non-electronic media from 6 to 21 hours. Special attention is given to the cartoon characters, limit to the brand licensing as well as free gifts and toys in the initiation.

Schutter have said: *"Existing food systems have failed to address hunger, and, at the same time, encourage diets that are a source of (being) overweight and obesity that cause even more deaths worldwide than does (being) underweight. (...) While 1 billion people suffer from hunger, 1.4 billion suffer from obesity caused by unhealthy eating habits. De Schutter cited research that a 10% tax on soft drinks would decrease sales volumes by up to 10%. He said countries should follow the recent*

examples of Denmark, Finland, France and Hungary, which have introduced levies on unhealthy food or drinks" (Trademagazine, 2012).

In war of childhood obesity it is a possibility to introduce fat tax. Hungary made a very important decision. The fat tax in Hungary will be introduced in September 2011 and modified in January 2012. The rate of fat tax is increased in year 2012. 7 HUF per liter in case of soft drinks, 250 HUF in case of energy drinks, in case of sweetened cocoa powder HUF per kilogram, in case of potato chips 250 HUF per kilogram, 250 HUF in case of stock cube and flavoring, 500 HUF per kilogram in case of jam; in case of alcoholic refreshment drink, flavored beer 20 HUF per liter.

Aim and methodology

In my researches I examined the expert opinion of health-care workers with a survey especially in connection of foods with high level of fat, sugar and/or salt content, childhood obesity, advertising in target group of children, protection of children and in theme of fat tax. In this survey 190 questionnaires were filled in Hungary, countrywide. Taking part in the research for respondents were voluntary and anonym without any previous selection, but the sample contains only health-care workers (e.g. doctors, nurse, assistant, pharmacist, physiotherapist, etc.). The sample contains experts who face with childhood obesity, so the competence of health-care experts is undisputed in these questions. In my research health-care workers could participate who have expert opinion of childhood obesity. Inquiry of the survey happened from 23th December 2011 up to now. Number of participant experts will be ca. 1000 persons, so this paper publishes partial results. The qualification of participate is very heterogeneous, the sample contains experts from beginner health-care workers to doctors with Ph.D. and D.Sc. Average age in the sample ($\bar{x} \pm s$) is 46.28 ± 11.68 year, range (R) 25-75 year, modus 35-39 year. During data procession I used statistical methods (mean, median, deviation, Cramer V statistics, Kendall's rank correlation, crosstabs etc.) with the help of SPSS 14.0 program and Microsoft Excel 2010 and Google Docs. I continued my descriptive researches with simple statistical methods, I used Cramer's V statistics for examining correlation among criteria. Kendall's rank correlation (Kendall' W) can be used for assessing agreement among respondents. Kendall's W ranges from 0 (no agreement) to 1 (complete agreement).

Table 1: Understanding willingness with different statements

Statements	Average	Mode	Median	Standard deviation
1. The children think that ads are funny	3.61	4	4	1.090
2. The ads can influence children's eating habits	4.48	5	5	0.751
3. The most advertised foods can be marked as "unhealthy"	3.66	3	4	1.008
4. The manufacturers marketing activities contribute to spread of childhood obesity	4.05	5	4	0.982
5. Childhood obesity is dangerous	4.88	5	5	0.411
6. Children underestimate the consequences of obesity	4.62	5	5	0.758
7. The children know that obesity contribute to increasing risk of other diseases	2.34	2	2	1.028
8. Fat tax is able to reduce childhood obesity	2.00	1	2	1.098
9. Sugar carbonated soft drinks has become part of everyday life of children	4.49	5	5	0.746
10. The advertisements can influence eating habits of children in wrong way	4.33	5	5	0.812
11. Consumption of foods with high level of fat, sugar and/or salt contribute to childhood obesity	4.17	4	4	0.745

Source: own research, 2012

Results

The objective of this study is to analyze the health-care workers' opinion about the above mentioned themes. Results of the research can be seen in the followings. Experts were asked to rank the level of agreement with different statement (1- I do not agree with the statement, 5 – I fully agree with the statement). The statement of questionnaire and the average of answers can be found in Table 1.

We can state that the level of agreement is high. It is excellently visible from the value of average, mode and median. A low standard deviation means that figures are tightly clustered. We may examine the agreement indicator of the consumers. Kendall's W can be calculated from these figures. Kendall'W can be used for assessing agreement among the experts. The value of Kendall's coefficient of concordance is 0.530 (53.0%). It means there is overall trend of agreement among the respondents. The value of the indicator exceptionally favourable, about 53% of respondents agree with the order totally.

If the statements are grouped, the level of agreement will be higher:

- » The Kendall's W is 0.813 (81.3%) in theme of childhood obesity (5., 6., 7. statement).
- » The Kendall's W is 0.856 (85.6%) in theme of fat tax (8., 11. statement).

The value of Kendall's coefficient of concordance in theme of childhood obesity and fat tax refers to the nearly complete agreement between the respondents.

My survey calls attention to several facts (facts are grouped). These statements are accepted by health-care workers:

- » Group 1.: It is visible that childhood obesity is very dangerous according to experts. Children underestimate the consequences of obesity (5., 6., 7. statement). It means a multiple risk factor. The lack of information contributes to the childhood obesity and spread of other diseases (e.g. diabetes type 2, hypertension, musculoskeletal problems, cancer and heart diseases, etc.).
- » Group 2.: It is visible that ads are amusing to children according to health-care workers. Ads are able to persuade children. Commercials can influence eating habits of children in wrong way according to experts (1.,2.,3.,4.,10. statement).

- » Group 3.: Consumption of foods with high level of fat, sugar and/or salt is part of everyday life. Consumption of “unhealthy” foods is more popular than consumption of vegetables and fruits. Introduction of fat tax can not solve this problem (8.,9.,11. statement).

A tax on items such as soft drinks and food considered to be junk food is rejected by Hungarians by a margin of 60%. The rejection rate is 61.2% in group of adults (Szűcs, 2011). The rejection rate is similar to other countries. It means that ca. 40% of respondents support the introduction of fat tax.

The rejection rate of fat tax is 37.1% in group of health-care workers. Experts think so that fat tax is acceptable, reasonable and necessary. The principle is simple. If the consumer eats more unhealthy foods have to pay more fat tax. Payment of more fat tax covers the probable health expenditures. The fat tax aims to discourage unhealthy diets and offset the economic costs of obesity. In group of health-care workers the fat tax is accepted by 62.9% of the respondents. The rate of acceptance is higher in group of health experts than in group of full population.

But the efficiency of fat tax in war of childhood obesity is questionable according to experts. The average value of statement “Fat tax is able to reduce childhood obesity” is 2.00.

Experts acknowledge that expenses of obesity load the budget. Incomes from fat tax increase the budget revenues. The most important thing is the compensation according to experts. The average calorie intake is 2300 kcal according to experts. It is more than the suggested. Experts suggest a higher rate of fat

Figure 1: Opinion about advertisements in case of foods with high level of fat, sugar or salt

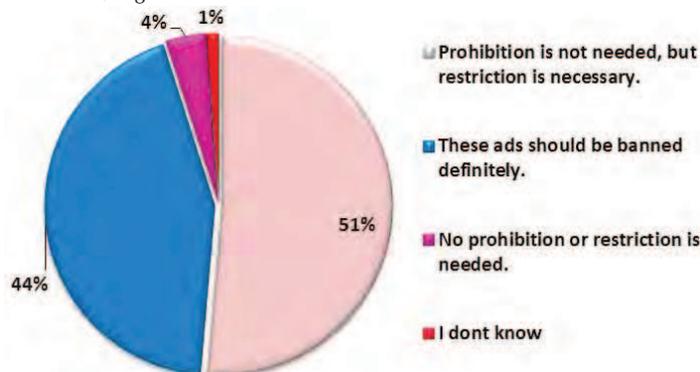
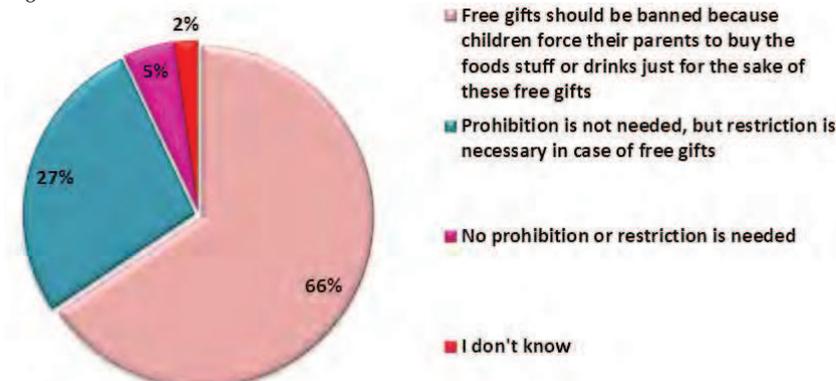


Figure 2: Opinion about free gifts in case of foods with high level of fat, sugar or salt



Source (both): own research, 2012

tax. If the fat tax would be average 39.88%, in this case the consumption of foods with high level of fat, sugar and/or salt would decrease. The suggested rate is higher than 23.85% which is mentioned by group of full population.

It is fact that the average health care cost of overweight persons is higher by 42% than normal bodyweight ones. Hungarian health-care experts think so that the value is 35.8%. The difference is not considerable.

The regulation of advertisements is a very interesting question. Unhealthy food products and harmful food marketing practices are wreaking havoc on the public health sector according to Schutter (2012). In my research health-care experts can express their opinion in theme of food advertising and giving free gifts. Detailed data can be found in Figure 1 and Figure 2.

The opinion of experts is clear; redefinition of advertising regulation is needed in case of foods with high level of fat, sugar and/or salt. We can also declare that 95% of the respondents think so that restriction is needed in case of unhealthy food advertisements (44% total ban, 51% restriction).

We can also declare that 93% of the respondents think so that restriction is needed in case of free gifts. Proportion of total ban is considerable (66%); it is higher than in case of advertisement (51%). I can state that the respondents agree with the regulation in California.

The Cramer's V coefficient, which measures the relationship between the experts' opinion and the experts' gender was low. The value of Cramer's V is 0.1845 in the case of advertisements, 0.0869 in case of free gifts. The opinion does not depend on the experts' gender. The low value confirms the professionalism.

Conclusion

There are several ways to fight against childhood obesity: rethinking legislation, regulation of communication in case of foods with high level of fat, salt and sugar, increasing the price of products with the tax tools, providing information about risk of childhood obesity, examining the role of parents. As to my opinion the efficient solution roots in the combination of all of these. It is a fact that foods with high level of fat, salt and sugar are popular among young people, with promoting these products we contribute to childhood obesity. Lack of legislation on market of foods with high level of fat, salt and sugar might lead to success in a short run but only for the producing companies. Profit is realized at the producing companies, but costs are borne nationally

as an increased nursing cost of obese children, young and adults. Thinking it over responsibly and rationally it can be foreseeable that the described process is not sustainable and needs intervention, not just in long, but also in a short run. The opinion of experts is clear; redefinition of regulation is needed in case of foods with high level of fat, sugar and/or salt. Experts think so that fat tax is acceptable, reasonable and necessary but it can not solve the problem of childhood obesity. The solution can be found in the combination of the above mentioned proposals.

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