

OBESITY AND OVERWEIGHT AS ECONOMIC THREATS

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Abstract

Marketing can be used by public and private organizations to alleviate obesity scourge in two main directions: identifying the triggers/generating factors and designing strategies to discourage the phenomenon. The study revealed that United Kingdom, Scandinavian countries and France as a newcomer, are the only countries in which the systematic healthy eating policies are implemented, beside the other information campaigns. The policy action of the Mediterranean countries, which is mostly limited to educational and informational measures, has a quite short history. This study aims to investigate the perceived necessity of nutritional education in schools.

Keywords: Obesity, overweight, eating habits, nutritional education

JEL Classification

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Introduction

The future of humanity at individual and social level depends on a healthy population, and obesity (OB) was in 2012 one of the top three global social burdens generated by the human being, after smoking, armed violence, war, and terrorism (McKinsey Global Institute 2014). The worldwide prevalence of obesity nearly tripled between 1975 and 2016 (WHO).

Reilly et al., (2003) define obesity, as the excessive accumulation of fat, is not only a cosmetic or aesthetic problem that could result in body shape dissatisfaction, but it also has other serious possible clinical and public health consequences. Contrary to the obese, overweight (OW) patients could usually lose weight by themselves (without the help of clinical experts and medication) and could fight against this abnormality of nutritional status.

In 2016, WHO estimation was that more than 1.9 billion adults, (39% of men and 40% of women) aged 18 years and older, were overweight. Of these over 650 million adults were obese, about 13% of the world's adult population (11% of men and 15% of women).

According to McKinsey Global Institute (2014) 5% of the deaths worldwide were attributable to obesity. If the incidence continues at this rate, almost half of the world's adult population will be overweight or obese by 2030 (Kelly, et al, 2008).

At this moment, it is more than clear, that our society has lost the battle with obesity, and some new approach is needed.

As biology, states humans and other animals have similar patterns (physiologic and behavioral) for feeding, hunger and the dietary regulation of macronutrient intake (Ulijaszek, 2002; Berthoud, 2004).

At the same time, various animals (especially mammals) have the tendency to eat more than satisfying the pure physiologic needs, mainly in order to increase the body fat deposition for periods when the food is not available (e.g., winter season), but no different from the tendency to overeat due to food portion size, palatability, energy density. According to Ulijaszek (2002) human eating behavior differs from other mammalian species in the extent to which food availability is controlled, personal feeding constraints operate, and social and cultural norms of diet and feeding exist. Berthoud (2004) discuss about food intake as driven physiologically by innate and cognitive factors in relation to the food environment. Myers and Sclafani (2003) identify the major components of feed-forward mechanisms between the brain and gut that anticipate the nutritional needs of the body and de Castro and Stroebele (2002); Rolls, (2003); Ulijaszek, (2002) explain that mechanism as responding to the abundance of food cues.

It is a paradigm now that the external circumstances strongly influence the individual choices of lifestyle and diets. The conventional belief that the individual has the sole responsibility of choosing the lifestyle, physical activity and diet is, therefore, strongly contrasted.

Obesity –a marketing approach

Marketing can be used by public and private organizations to alleviate obesity scourge in two main directions: identifying the triggers/generating factors and designing strategies to discourage the phenomenon.

In 1999 Swinburn et al. define obesogenicity as “the sum of influences that the surroundings, opportunities, or conditions of life have on promoting obesity in individuals or populations”.

The models for studying obesity prevalence include five components (1) thrifty genotypes; (2) obesogenic behavior; (3) obesogenic environments; (4) nutrition transition; and (5) obesogenic culture.

Authors find as useful for the marketing of a healthy life style (including here a healthy diet) the complex biocultural model of obesity proposed in 2007 by Ulijaszek (figure no. 1)

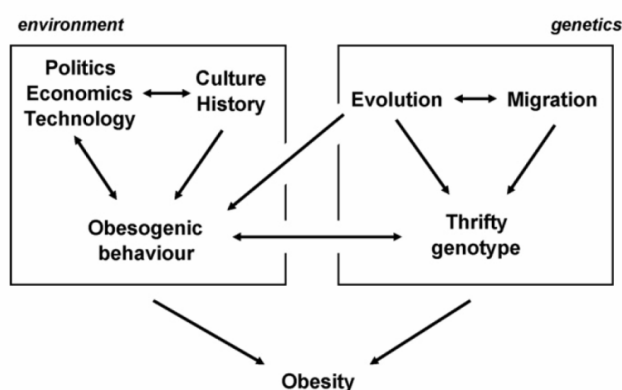


Fig. no.1 A biocultural model of obesity

Source: Ulijaszek, S. J. (2007). Frameworks of population obesity and the use of cultural consensus modeling in the study of environments contributing to obesity. *Economics & Human Biology*, 5(3), 443-457

Ulijaszek (2007) defines obesogenic environments as including “the production, distribution, availability and affordability of foods that may predispose to obesity” and divide the obesogenic environment according to size, in micro- and macro-environment and in types (physical, economic, political and sociocultural), in relation to food and physical activity.

Using this model, competent agencies authorized in each country can develop, with the help of the marketing instruments and techniques, useful programs in order to decrease obesogenic behavior using adequate public policies.

Qualitative marketing research

Provencher et al., (2008); Vollrath, Hampson & Juliusson (2012) studied various eating behaviors and discovered that people, including children, with high levels of awareness tend to have healthier eating behaviors. Stroebe, et al. (2008) demonstrate that conscious awareness plays an important role in the self-regulation of food temptations.

Nutrition contents are widely included in curricula in Europe at least, and most adolescents and school-aged children are aware about the importance of healthy eating habits, one can note from a global perspective that translating this knowledge into action mostly fails. Maintaining unhealthy eating patterns, despite the fact that the adolescents are being aware of the risks raised by the inappropriate eating, suggests that they are facing various obstacles in self-regulating their eating behavior (Gaspar, 2014). In this respect, children and adolescents could benefit from school-based interventions, either in rural or urban settings, in shaping self-regulatory behaviors when it comes to buying and eating healthily (Anderson et al., 2007). Social influence and self-regulation cognitions must also be addressed by these interventions (Kalavana, Maes & De Gucht, 2010).

Howard and Prakash (2011) found evidence that pupils participating in the state-funded food programs consume more fruit, vegetables and natural juices than those eating meals in the family. The kids benefit from a healthy food program that is maintained over a longer period of time than the schooling period

Concluding, we agree to Chirita-Emandi et al. (2016) opinion “there is an urgent need for early interventions in pre-adolescent years, in both genders, in Romanian children”.

Research methodology

In order to achieve the study, one has used the qualitative research method. There has been a number of qualitative interviews with 27 mothers from medium/small cities of Romania (cities with under 150,000 inhabitants). The chosen cities were: Buzau (2), Medgidia (1), Mangalia (1), Targoviste (1), Pitesti (2), Calarasi (1), Slatina (1), Drobeta Turnu (1), Arad (1), Deva (1), Alba (2), Zalau (1), Satu Mare (1), Bistrita (1), Miercurea Ciuc (1), Focsani (1), Vaslui (2), Roman (1), Tecuci (1), Botosani (2), Suceava (1), Barlad (1). Selected income intervals were between 1250-1800 lei per capita, average education level and above average, 9 mothers for each significant historic zone in Romania.

We have chosen mothers for interviews because living in the same household, mothers usually are the ones preparing meals for the whole family, mothers are often in charge with the food supply, and the strongest correlation can be found between mother’s eating habits and the ones of the child. Mothers are more child oriented and are in charge with the health and the nutrition of the children (Popescu, 2009).

The medium/small urban environment was selected because the exposure of the parents and children to marketing practices and media influence are significantly higher than in rural areas, so their reactions and parents' perceptions related to this subject are visible. In addition, the income level and the parents' education is higher than in urban than in rural areas (NIS, 2018) which has a direct connection with the level at which the parents and children may be accessed through various marketing practices and by default on the level in

which those can be influenced by them. At the same time, in a small/medium town in Romania, the cultural patterns (including food culture) are well preserved.

Using the snowball method, courtesy of college teachers in pre-university education (grades 0-8), we identified overweight/obese children in the age group of 6-14 years. My colleagues facilitated us the access to the OB/OW children's mothers, whom we asked for an interview on nutritional habits. We submitted requests to 150 parents, accepted 86, and we selected those who met geographic and age criteria, 3 children in each age.

The interviews were conducted in locations chosen by the parents, in person, or online, at different hours and different days, depending on their schedule, during Nov 2018-february 2019. Each interview lasted 45-60 minutes, each depending on the time available and the mother's level of cooperation

This study aims to investigate the perceived necessity of nutritional education in schools. The main goals of the present study were:

- to identify the children eating habits;
- to identify family eating habits;
- to identify the level of awareness about nutrition of children;
- to identify those persons perceived as nutritional experts;
- to identify the marketing elements considered to be appropriate in relation to educational nutrition in Romania;
- to investigate the obesogenic environment.

Secondly, the research aimed to identify:

- the perception of nutritional marketing activities in general;
- the types of arguments/media channels able to influence the children to form opinions on healthy eating;
- the types of arguments/media channels able to influence the mothers to form opinions on healthy eating;
- the distinction between the children's level of influence over the food consumption at different age intervals;
- the level of trust in the Ministry of Health and Ministry of Education, particularly related to the nutritional tutorials/programs for children.

The topic of the interviews was decided by the enumerated aims of the study. They have shaped the questions and the order they were addressed and have guided the final analysis indicating the adequate direction of investigation.

Marketing research context. Prevalence of OB and OW children

WHO (2016) estimated 41 million children under the age of 5 years were OW or OB. Once considered a high-income country problem, overweight and obesity are now on the rise in low- and middle-income countries, particularly in urban settings. In Africa, the number of overweight children under 5 has increased by nearly 50 per cent since 2000. Nearly half of the children under 5 who were overweight or obese in 2016 lived in Asia. Over 340 million children and adolescents aged 5-19 were overweight or obese in 2016. The prevalence of overweight and obesity among children and adolescents aged 5-19 has risen dramatically from just 4% in 1975 to just over 18% (similarly among both boys and girls) in 2016. In 1975 just under 1% of children and adolescents aged 5-19 were obese, in 2016 more than 124 million children and adolescents (6% of girls and 8% of boys).

At the moment, overweight and obesity are linked to more deaths worldwide than underweight.

Many European studies were conducted in the last 10 years and all found the prevalence of overweight children similar in those countries in the Eastern Europe, studied region, whose societies are similar in terms of economic, nutritional or health indicators level. Bodszar and Zsakai A (2014) revealed the prevalence of overweight (including obese) children was 12–

14% in the group of Belarus, Romania, Bulgaria, Bosnia and Herzegovina; 15–17% in the group of Lithuania, Hungary, Latvia, Croatia, Poland, Russian Federation; 17–23% in the group of Slovakia and Czech Republic; 23–24% in Slovenia (which was a bit distinct from all of these groups, not only by considering the prevalence of childhood overweight, but also by regarding the economic, health and nutritional factors); and 24–28% in Turkey.

Chirita-Emandi et al. (2016) found the prevalence of overweight and obese children comparable at levels with those from other European countries. That puts Romania on the map of the countries in which childhood obesity is at epidemic levels.

According to WHO criteria almost one in four children in Romania was overweight, or obese while the prevalence of underweight children was low (Chirita-Emandi et al. 2016).

Brug et al. (2012) found in Slovenia, Spain, Italy, Greece, or Hungary a higher prevalence of overweight in boys. According to Chirita-Emandi et al. (2016) also in Romania, boys were 1.4 times more likely to have excess weight when compared to girls.

A study within 9 countries, The Netherlands, United Kingdom, Poland, Portugal, Denmark, Romania, Germany, Finland and Belgium, (Gaspar, 2014) revealed that: despite not being statistically significant, the association between rural/urban settings and eating awareness/care is negative in all countries except in Portugal, Romania and Poland (the three less-wealthy countries). The hypothesis linked to this finding suggest, some complex cultural issues like: less unhealthy food temptations in rural poorer countries; higher levels of unhealthy food temptations in urban richer countries; parental monitoring and availability to cook at home, all to be tested later.

In Romania, excess weight was found prevalent in the urban than in the rural environment (Chirita-Emandi et al., 2016). Farajian et al. (2011) and Johnson and Johnson (2015) suggest that this type of variation (urban/rural) may be attributed to differences related to education, physical activity, sedentary behavior, economical family status, or even self-perception.

Romania has incidence of 34% of OB children in 6- to 12-year-olds (prepubertal and in early puberty) and 15% OB children in 15- to 19-year-olds (late puberty and postpubertal youths) (Chirita-Emandi et al. 2016).

Main reason for extra food intake at children

According to many studies the first reason is over-nutrition (a diet too rich in calories), than the permanent availability of food, the nice marketing exposure of food, especially the snacks and sweets and a lack of physical exercise at the same time (Craciun and Baban 2008; Petrovici and Ritson, 2000; Pelin, Georgescu, et Ștefanescu, 2014).

Other factors mentioned are from behavioral and sociological area. Many studies have observed and identified as important forces for OB and OW problems: parental intakes and negative statements about food, family support, parenting practice, and minutes spent eating at home, food presentation and parental preparation of quick and easy food, marital status of parents and number of meals eaten out. (Ulijaszek, 2007)

Consequences of obesity over the children

The obese or overweight children are prone to encounter and carry the consequences of psychological and psychiatric disorders in childhood, adolescence and even in the adulthood (Rankin et al., 2006). Compared with psychiatric consequences, the psychological effects are less clear. Victimization, teasing, stigmatization, altered cognitive performance, low self-esteem are only some of them. Even the quality of life of the obese and overweight children is decreased due to their altered physical and mental health, leading from here to lower school performance (Trandafir et al., 2015). Current research in the field (Pulgaron 2013, Cortese et al. 2008, Nigg et al., 2016, Rancourt and Cullough, 2015, Kalarchian and Marcus 2012, Harriger and Thompson 2012, Kalra et al., 2012, Wardle et al., 2006) has conducted to the fact that the obese and overweight children are less prone to experience

psychological issues like depression, emotional or behavioral disorders while obese and overweight adolescents are more likely to encounter more psychological disorders than the healthy weight correspondents, and all this tends to be extended into adult life (van Wijnen et al., 2010).

A considerable amount of research, advocating that the children attending schools where the curriculum covers and emphasizes elements of nutrition education are better than the children from schools where nutrition is not taught, confirms the prior conclusion (Shannon and Chen, 1988; Keirle and Thomas, 2000; Kandiah and Jones, 2002; Roseman et al., 2011). The significance of the nutrition education in schools is strengthened by the results of Gabroschi et. Campos (2014). More than this, the study of Gabroschi et Campos (2014) has revealed that the children who do not benefit from the nutrition education in schools are more influenced by mass-media in what is concerning the social representation (SR) of food.

In order to have tangible results in obesity prevention, which is a complex affair, the Lawton (2012) conclusions suggest that the best approach is a multidirectional one: the increased physical activity, improved food quality, family and community support.

The local study of Chirita-Emandi et. all (2016) reinforces too the need for a comprehensive approach in the fight against childhood OB/OW and for the implementation of public health policies for the prevention of the current Romanian children epidemic obesity.

In Romania, Order 1563 of 2008 September 12 stipulates that the children with neuro-psychomotor deficiencies which are enrolled in special education centers benefit from a special nutrition program. This consists of two meals a day, supplemented by a snack, following the breakfast-snack-lunch sequence. The children coming from disadvantaged families could benefit themselves from this program in normal schools, but this aspect is still under discussion. The results of such programs are controversial, there are no solid proofs that the obesity among children is reduced, the school dropout rate is mitigated, or they contribute to creating healthy nutritional habits. European Union also started different initiatives in this respect; one of them is providing fruit and milk in European schools.

Discussions revealed that mothers are not aware of healthy eating habits. As it can be seen from the two comparative figures, the food structure of the Romanian children OB / OW is inadequate to the chart proposed by the Spanish Society of Community Nutrition. The aspects such as physical exercise, general emotional state, healthy cooking principles and proper hydration have even not been discussed. Remembered in the probing, these were mentioned only as concrete ways to lose weight.

The structure of the food pyramid in OB/OW children in Romania is based on bakery products, dairy products and white meat. An inappropriate amount of sweets (packed or homemade) are consumed too.

Paradoxically, eating fast food is rather low, the main reason we suspect, it is a modest income. Also fruit and fresh vegetables consumption is low, the main cause being the cultural one. Fish and seafood consumption is also low, especially due to inaccessible prices for an average income.

Overall, whole grain intake, sweets and salt consumption are problematic.

Conclusions

A need for strong social campaigns

A number of aspects found in the analysis of the data provided by this study are validated through international studies. Our main conclusion is that Romania needs responsible marketing campaigns in order to develop nutrition consciousness is found in (Grabovschi and Campos, 2014). Moreover, Grabovschi and Campos (2014) suggest that the policy makers should be awakened in this direction, to develop and implement specific policies, "Romania would also benefit from a social campaign encouraging policy makers to improve

public policies on nutrition. Such a campaign would target widespread change in the dissemination of ideas about food and nutrition, by shifting the focus of public interest from obsession with unhealthy food to better understanding of healthy eating”

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