

STUDY ON SOME FACTORS FOR HEALTHY NUTRITION ENVIRONMENT IN RESTAURANTS IN SOUTHWESTERN BULGARIA

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Review

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Abstract

The purpose – The purpose of the study is to conduct a regional survey in tourist companies in Southwestern Bulgaria for examining some key factors for building/forming a healthy nutrition environment.

Design – The special focus is given to analysis of the key factors for creating healthy nutrition environment in restaurants.

Methodology – A cross sectional survey conducted including 34 respondents from 120 operating hotels with restaurants in Southwestern Bulgaria and 30 independent restaurants in Blagoevgrad, Kyustendil and Samokov – the three main towns in the area. The level of knowledge on healthy nutrition and healthy foods was assessed using a 5-rank scale and the healthy practices was conducted in the aspects: availability of healthy options, point-of-purchase information to facilitate healthy choices and promotion and communication of healthy foods.

Approach- Implementation of healthy eating practice is studied in restaurants as the restaurant is one of the most important public places that form a healthy nutrition environment and create conditions for implementation of initiatives to support healthy food choices.

Findings – It is indicated that the management staff of the surveyed tourist companies shows good level of knowledge and awareness on healthy nutrition issues. Despite good theoretical knowledge, however, the implementation of healthy practices in the restaurant business is insufficiently developed. There is no clear concept for introduction of healthy eating practice in restaurants and there is no active communication with the client in this regard either. The main conclusion focuses on the need of collaboration between nutrition specialists, academic institutions in tourism, and restaurant and hotel entrepreneurs to implement the principles of healthy eating in out-of-home settings.

The originality of this research – The originality of the study lies in the fact that for the first time in Bulgaria the preconditions for the formation of a healthy environment in restaurants are explored.

Keywords Restaurant, Healthy eating environment, Nutrition information, Healthy eating pract

INTRODUCTION

The nutritional model as a determinant of health is a key factor in preventive strategies for reducing the risk of chronic non-communicable diseases such as cardiovascular diseases, some cancers and obesity, which in turn is a risk factor for developing type 2 diabetes, hypertension, ischemic heart disease, certain cancers, etc. (WHO 2004). Changes in the individual eating model and low physical activity cannot explain the emerging epidemic of chronic noninfectious diseases in the last decades (Institute of

Medicine, Health and Behavior, Washington DC, 2001). What actually induce them are the processes of industrialization and urbanization that affect behavior and change the traditional eating model. The consumption of industrially processed, energy-dense foods, animal and hydrogenated fats and simple carbohydrates is constantly increasing while the intake of vegetable and natural, unprocessed foods is progressively decreasing. Differences in the frequency of appearance of unhealthy habits among population groups with different physical, social and economic status allows us to presume that the environment plays a significant role in forming a particular behavior, including the eating one (Woolf et al. 2011, 40). Social stratification represented by the educational level, professional status and disposable income also appears to be a factor for a change in the eating model but the crucial role is played by the so-called 'nutrition environment' (Glanz et al. 2005, 19). The concept of 'nutrition environment' is a complex determinant, which includes factors that affect nutrition such as: availability, accessibility and attractiveness of food; location and organization of eating process; perception of food safety, information and promotion of some foods (Lytle and Fulkerson 2002, 5). It is the 'environment' that can explain some ethnic, racial, social and geographical differences in nutrition and health status of different population groups (Wool et al. 2011, 40, Mortland et al, 2001, 22). The restaurant is one of the most important public places that forms an environment for eating and creates conditions for implementation of initiatives to support healthy choices and encourage consumption of healthy foods (Glanz and Hoelscher 2004, 39) It is found that eating out-of-home is not only increasing its share, but also has a significant effect on the quality and quantity of food consumed. It is unhealthier than eating at home, contains more total and saturated fats and less fiber and micronutrients, calcium and vitamin A. (Orfanos et al. 2009, 63). Individuals who eat more often at a restaurant have a higher average energy intake and consume more fats and sugars and fewer fruits and vegetables (Kant and Graubard 2004, 24, French and al, 2000, 24). There is a correlation between frequency of eating at fast food restaurants and children's Body Mass Index and the latter is higher for those who often attend this type of restaurants (Brownell 2004, 113) There are some limitations in studying the influence of eating in restaurant over customer eating behavior as different establishments vary by supply of healthy options and provision of information, promotions and advertisements (Saelens et al. 2007, 32). Essential factors for creating a healthy menu in the restaurant are the level of knowledge and positive attitude of management staff and the skills of the operational staff to prepare and offer healthy food (Kratt et al. 2000, 27).

The healthy food choice given in an out-of-home nutrition environment undoubtedly has a positive not only health but also economic impact. Publications related to the level of knowledge and awareness of Bulgarian tourism managers on healthy eating issues were not found in the available published literature. There was also no evidence on evaluation of healthy practices applied at restaurants. Thus we were motivated to experiment and conduct the presented study.

The aim of this study is to conduct a regional survey in tourist companies and especially in hotels and restaurants in Southwestern Bulgaria for examining some key factors for building/forming a healthy nutrition environment. To fulfill the aim of the study, the following tasks are set:

1. to determine the level of knowledge and awareness of managerial staff in hotel and restaurant businesses on healthy nutrition;
2. to assess nutrition environment and to identify practices and approaches facilitating the healthy food choice..

METHODOLOGY

The survey includes 34 respondents from 120 operating hotels with restaurants in Southwestern Bulgaria and 30 independent restaurants in Blagoevgrad, Kyustendil and Samokov – the three main towns in the area. To assess the knowledge of the managerial staff a two-stage sampling procedure was applied: at the first stage a selection of leading Bulgarian tour operators with a comprehensive database of hotels in Bulgaria - Astral Holidays, Bulgaria Holiday and Sunny Tours, were identified in order to form a sample of actually operating hotels and restaurants in southwestern Bulgaria and actually doing business with these tour operators (based on actual offers and comparative analysis); at the second stage a list of 120 operating 3, 4, or 5-star hotels in Southwest Bulgaria were extracted from the internet sites of the above mentioned three tour operators and a contact information was obtained for each of the hotels. The identified 120 hotels represent the comprehensive number of hotels in the area. An online questionnaire to each of the identified potential respondents was sent. To study the nutrition environment in restaurant settings, restaurants with full waiter service were selected randomly for the observational survey conducted in the three above mentioned cities.

For the purpose of study two types of questionnaires were developed. The first questionnaire aims to assess the level of knowledge and awareness about nutrition and includes 52 questions divided into three groups - healthy eating, healthy foods and traditional foods. In the current publication the only first two groups of questions were analyzed and presented. The questionnaire was developed based on a comprehensive literature review and dietary guidelines and taken from a validated existing questionnaires for general nutrition knowledge assessment of adult population (Parmenter and Wards 1999, 53). The questionnaire was piloted to two groups – fourth grade students in tourism and lecturer in tourism to assess item difficulty and consistency. The version of the final questionnaire was transformed in electronic style for an online survey. A 5-rank scale is used with the following discriminative criteria: 1- totally disagrees; 2 – somewhat disagree; 3 – neutral; 4 – somewhat agree; 5 – totally agree.

The second questionnaire was developed for observation on place and aims to recognize healthy practices applied in restaurants. It consists of 16 criteria divided into three groups: availability of healthy food options, information to facilitate healthy choices and promotion of healthy foods. Interviews, questionnaires and observation of restaurants were conducted in September-October 2011. The survey results were statistically processed with SPSS, version 10, using alternative statistical analyses and analyses of variance and the results are presented as an average score of positive answers and also as percentage (%).

RESULTS

Thirty four out of the 120 questionnaires sent to the exhaustive list of hotels with food-serving establishments were adequately completed and returned and accordingly the response rate of the study was 28.3 %. Table 1 represents the profile of respondents, based on gender, age and professional status.

Table 1: **Profile of respondents to the survey on assessment of the awareness on healthy eating.**

	Number (n)	Share (%)
Gender		
men	27	80
women	7	20
Age bracket (years)		
18 – 24	4	12
25-34	15	44
35- 44	9	26
45-54	6	18
Position		
Top-level manager	12	35
Middle-level manager	18	53
No answer	4	12

Source: Author's research

A greater part of the respondents are men, at the age of 24-35 and are top- and mid-level managers. This could be explained by the fact that persons occupying higher managerial positions are more sensitive to such research and ready to participate. In addition, they have more access to internet within the working hours.

Table 2: **Proportion of positive answers about healthy foods.**

Healthy foods	Percentage of respondents who indicated "totally agree" (%)
Fresh fruit and vegetables	85.3
Chicken, veal, fish	69.7
Olive oil, linseed oil, corn oil	64.7
Mature beans, lentils, walnuts, almonds	58.8
Whole meal bread	52.9
Natural fruit juice	43.3
Low-fat yoghurt	42.4
Cow butter	21.9
Wine, red and white	21.1
Sunflower oil	6.1
Cakes, ice cream, creams	3.3
Pork	3.1
Pastry	3.1
Lard	3.1

Source: Author's research

Table 2 represents the responses to questions referring to healthy foods. They are listed in a descending order, according to the share of positive answers. The questions were formulated so that the respondent can choose one of the options that relate to a particular food: What is 'healthy food' (five rating scale) and which of these foods are healthy (please note the extent to which you agree with the following statements: fruits and vegetables, fish, animal foods, low sugar fruits, high protein foods etc.

The results reveal that a significant part of the respondents are aware which foods are healthy, and more than half of them (> 52%) have correctly indicated the five healthiest groups – fresh fruits and vegetables, vegetable oils, rich in Omega 3 FA, pulses and nuts, wholegrain bread. Only a small part of respondents (< 7%) have included sunflower oil, lard, pastry and confectionery in the group of healthy foods. Those foods have a high content of fats and according to current nutrition knowledge are not considered healthy (US Department of Agriculture, Dietary Guidelines for Americans 2010). The good level of managers' knowledge reflects the increased public interest towards nutrition in the last few decades, accompanied by a wide media activity in discussions of problems related to health and nutrition, which goes far beyond the sphere of health care and clinical practice (Albright et al. 1990, 170). The level of awareness of the healthy eating concept is depicted in Table 3 as a mean, and the standard deviation is also presented. The high values for foods rich in vitamins and minerals, and low in salt, sugar and animal fats (such as plant and natural foods), show that the managers in the tourism sector are well informed on healthy eating. Adequate awareness is especially important, because the restaurants can create a link between the customer and the public programs for healthy nutrition and life-style (Brinberg et al, 2000, 35.) The introduction of healthy practices in out-of-home eating through modification of food offering and ban on smoking can have a positive impact on health, because in a number of countries the average frequency of eating out is more than 4.2 times a week. This is a prerequisite for healthy offers to form a respective behavioral model (Natl Restaurant Assoc, 2012). It has been found out that there is a close relation between eating in restaurants and weight gain, the main factors being the high energy value of the food offered and the big portion size (Bezzerra et al. 2012, 70)

Table 3: Level of awareness on healthy eating

Healthy eating n=34	Mean X	Standard deviation SD
Rich in vitamins and minerals	4.76	0.49
Low content of salt	4.34	0.82
Plant food	4.24	0.83
Natural, no sugar added	4.06	0.96
Poor in animal fats	3.72	1.20
Foods of animal origin	3.21	1.11
Rich in animal protein	3.12	0.94

Source: Author's research

The observational study in thirty randomly selected restaurants reveals that there is a limited healthy food options in the restaurants. Although most restaurant menus contain poultry or fish meals, fresh vegetable salads with no added fat, stewed vegetable side dishes and healthy beverages (Table 4), the variety of healthy foods is limited and there

are no strategies that facilitate healthy choice – nutrition information, labels or logos saying “healthy”, small portion size and therefore reduced energy value, a salad bar, or options for preparing healthy alternatives.

Table 4: Assessment of availability of healthy foods and beverages in restaurants

Healthy foods	Availability of healthy food options	Proportion of restaurants offering healthy foods (%)
FOODS		
Poultry and fish	daily	96%
Salads of fresh vegetables without added salt and oils	daily	100%
Stewed/boiled vegetables	all year	80%
Vegetables (freeze)	winter season	76%
Whole meal bread	daily	20%
Drinks		
Diet cola	daily	100%
Yogurt (Diluted with water)	daily	100%
Natural fruit juice without added sugar	daily	72%
Low fat milk and yoghurt	daily	40%

Source: Author’s research

Only 4% of the restaurants have a salad bar, 8% have marked calories and fat for some dishes on the menu, the same percentage offer diet menu and in 16% - reduced portion sizes are available.

In 32% of the surveyed restaurants some of the dishes are labeled as 'new' and 'healthy' and in 76% of them individualized preparing of dishes is offered, but it is unclear whether these signs actually correspond to a healthier food, and whether customers demand healthier alternatives. In none of the restaurants visited desserts such as fresh fruit salads and fruits without added sugar are offered. Yet, opposite practices that encourage excessive consumption in the restaurant - promotion of large portion size, offering food and drinks at a fixed price and unlimited access to food at the same price were not identified either.

Factors that create a healthy food environment in a restaurant include: wide selection of healthy foods, and easier access to such foods through information, communication, promotion and price reductions. It has been proved that under well organized campaigns to promote healthy eating every third consumer makes a healthy food choice (Fitzgerald et al. 2004, 104).

CONCLUSION

Despite their good theoretical knowledge, managers are not active in implementing healthy practices in the restaurant. The conception of sustainable supply of healthy food is not applied in the surveyed restaurants and there is a lack of broad communication to the client in this regard.

Collaboration between the public and private sectors is an essential and promising approach to promote healthy eating in restaurants. Universities and tourist bureaus can cooperate with local restaurants and culinary institutes to demonstrate leadership in offering and promoting healthful meals, developing healthy recipes, conducting analyses and surveys and spreading promotional materials.

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