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THE IMPACT OF INFORMATION ON EATING HABITS AND FOOD CULTURE

UTJECAJ INFORMACIJA NA PREHRAMBENE NAVIKE I KULTURU ISHRANE

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ABSTRACT

For an organism to function normally, it must maintain a proper diet. Many factors impact the eating habits of the population, including information about food. Information comes from many sources, but the population is mostly informed through media and food declarations. This study aims to uncover the difference between informed and uninformed respondents and determine the impact of media on the eating habits of the population. The research was conducted using an online questionnaire in which 225 responders participated. Our results confirm that there is no statistically significant difference between the eating habits of informed and uninformed consumers. The impact of media on choices of sweets and fast food was also confirmed, as well as the direct impact of advertisements for sweets and fast food on food choices and consumer awareness.

Keywords: information; eating habits; uninformed/informed consumers

SAŽETAK

Da bi organizam normalno funkcionirao mora se pravilno hraniti. Mnogi čimbenici utječu na prehrambene navike stanovništva, uključujući informacije o hrani. Informacije dolaze iz više izvora, no stanovništvo se uglavnom informira putem medija i deklaracija na hrani. Ovo istraživanje ima za cilj otkriti razliku između informiranih i neinformiranih ispitanika te utvrditi

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utjecaj medija na prehrambene navike stanovništva. Istraživanje je provedeno putem online upitnika u kojem je sudjelovalo 225 ispitanika. Naši rezultati potvrđuju da ne postoji statistički značajna razlika između prehrambenih navika informiranih i neinformiranih potrošača. Potvrđen je i utjecaj medija na izbor slastica i brze hrane, kao i izravan utjecaj reklama za slatkiše i brzu hranu na izbor hrane i svijest potrošača.

Ključne riječi: informacija; prehrambene navike; neinformirani/informirani potrošači

INTRODUCTION

Eating habits are defined as the conscious and repetitive way a person eats, including types of food, quantities, and the timing of consumption, in response to cultural and social influence (Mahmood et al, 2021). Many factors impact eating habits, including individual tendencies, differences in tastes, interest in nutrition, physiology, life habits, environmental factors, and safety perceptions of food products (Šarić, Zima, Marketanović, Hadžić, 2017). Food choices are also impacted by age, gender, mental health, food that people like or dislike, economic opportunities, tradition and religion, environmental factors, price, and food availability (Odžaković et al, 2016, Reddy & Anitha, 2015). However, nutritional information and information from the media have also been observed to influence eating habits.

The impact of media is the most pronounced in children and adolescents (Dalton et al 2017), but it is necessary to differentiate between correct information, which is the result of scientific studies, and disinformation which are incomplete, unfounded, and wrong information (Krešić 2012). Information and disinformation that people get about food mostly come from the media and food labeling, but they can rest on traditional-based beliefs (Krešić, 2012). An excessive amount of information increases the risk of consumer overload, but more information about the product should be offered to consumers for balanced and stable nutrition (Soederberg, Kasadijab, 2015). Food declaration is any label, trademark, mark, image, and other descriptive material, written, printed, patterned, inserted, embossed, or attached to a food container or food product (Krešić, 2012; Rayner et al., 2021).

The occurrence of disease connected with nutrition is the main reason for nutrition labeling (Sproesser et al., 2019; Knežević, Rimac & Brnčić, 2021). Nutritional information are important to prevent chronic non-infection disease, but consumers tend not to use them. To decrease the occurrence of chronic diseases, food labeling suggesting which food is a better choice has been introduced. Nutritional information such as sugar, fats, and salt content are marked with red (unhealthy or high levels), yellow (somewhat healthy or medium levels), or green (healthy or low levels) (Zhang et al., 2020). Based on research in the USA (Persoskie et al., 2017) it was concluded that many people didn't understand nutrition labels. Respondents in the research in South Africa said that 24,7% always read nutrition information, 42,0% read them sometimes, while 33,3% never did (Jacobs, De Beer & Larney, 2011). The same study (Jacobs, et al., 2011) reported that 46,5% of respondents in the same study stated that have difficulty reading nutrition labels. Many authors wrote about the impact of media on eating habits. Most advertised food has high levels of sugar, fats, and salt (Zalma, Safiah, Ajau, Anuar & 2015). Famous brands try to encourage appetite through advertisements (Klassen et al.,

2018) while other studies (Qutteina et al., 2022.) showed that social media changes behaviour and affects the choice of less desirable food. This study will investigate the possible difference in eating habits between informed and uninformed respondents, as well as those who understand nutrition information and those who don't. In addition, the study will explore the impact of media, as a means of information, on the eating habits of respondents. This topic has not been researched in Bosnia and Hercegovina, which makes this research necessary.

1. METHODS

The survey was conducted between 09.07.2021 and 02.08.2021, using an online form (Google Forms) and it involved 225 subjects, 152 women and 73 men, in the age range between 15 and 67 years old. The study was conducted with the standardized Eating Habits Questionnaire (EHQ) with corrections. The responders were chosen at random, but with their consent. The quantitative, descriptive method and transversal type of survey were used.

Statistical analysis

The analysis results are shown in tables, along with the presentation of descriptive statistics for the variables that are the subject of analysis: percentage, arithmetic means with standard deviation and minimum and maximum values of the observed variables. The Kolmogorov-Smirnov test was used to test the distribution of the data. Testing of differences between the observed groups was performed by chi-square test, while impact testing was performed by Spearman's rank correlation coefficient. The results of all these tests were considered statistically significant at a level of reliability of 95%, ie. with p values <0.05.

The analysis was performed using the IBM Statistics SPSS v 25.0 statistical package.

2. RESULTS AND DISCUSSION

Most of the responders in our research said they consume sweets and fast food every other day (73 responders or 32.4%) and once per week (72 responders or 32%) (Table 1).

Table 1. Influence of advertising content on food consumption

Have you ever been prompted by advertising content to buy this food?		How often do you eat this type of food?				Total
		I don't eat	Once a week	Two or more times a week	Every day	
Fruit ¹	Yes	1 (0,6%)	12 (7,2%)	72 (43,4%)	81 (48,8%)	166 (100%)
	No	0	9 (15,3%)	18 (30,5%)	32 (54,2%)	59 (100%)
Total		1 (0,4%)	21 (9,3%)	90 (40,0%)	113 (50,2%)	225 (100%)
Vegetables ²	Yes	2 (1,2%)	11 (6,6%)	83 (50,0%)	70 (42,2%)	166 (100%)

	No	1 (1,7%)	3 (5,1%)	26 (44,1%)	29 (49,2%)	59 (100%)
Total		3 (1,3%)	14 (6,2%)	109 (48,4%)	99 (44,0%)	225 (100%)
Sweets and fast food³	Yes	7 (4,2%)	54 (32,5%)	47 (28,3%)	58 (34,9%)	166 (100%)
	No	8 (13,6 %)	18 (30,5%)	26 (44,1 %)	7 (11,9%)	59 (100%)
Total		15 (6,7%)	72 (32,0%)	73 (32,4%)	65 (28,9%)	225 (100%)

¹ $\chi^2=5,417$, $p=0,144$, $r=0,011$, $p=0,869$; ² $\chi^2=1,043$; $p=0,79$, $r=0,060$; $p=0,374$; ³ $\chi^2=17,108$; $p=0,00$, $r=-0,180$; $p=0,007$

Fewer responders (65 or 28.9%) said they consume these types of food daily, while 15 respondents (6.7%) never consume them. Other results of similar research (Nakić, Šimunić – Cvrtila, Šošić, 2017.) obtained suggest that media influences eating habits, especially in children. The results of the research indicate that advertising content only influenced the choice of sweets and fast food, which agrees with the results of a study from Brazil (18) that states that advertising content is often repeated and based on emotional factors. Due to the frequency of processed food advertising, many studies show a connection between the media, i.e. watching TV, and obesity (Dalton et al 2017.; Krešić 2012.), (6) points to the spread of misinformation due to celebrities advertising certain products. Other research (Silva et al 2021.) found that children asked parents to buy the foods they saw in the advertisement, most often food with high sugar content.

Table 2. Influence of advertising content on meat consumption

		What do you consume the most?					Total
		Red meat	Chicken	Fish	Meat product	None of the above	
Have you ever been prompted by advertising content to buy a certain food item?¹	Yes	31 (18,7%)	114 (68,7%)	4 (2,4%)	14 (8,4%)	3 (1,8%)	166 (100%)
	No	15 (25,4%)	38 (64,4%)	0	5 (8,5%)	1 (1,7%)	59 (100%)
Total		46 (20,4%)	152 (67,6%)	4 (1,8%)	19 (8,4%)	4 (1,8%)	225 (100,0)
Do you understand the nutritional information on the declaration (energy value, sugar,	Yes	30 (17,6%)	119 (70,0%)	3 (1,8%)	15 (8,8%)	3 (1,8%)	170 (100%)
	No	16 (29,1%)	33 (60,0%)	1 (1,8%)	4 (7,3%)	1 (1,8%)	55 (100%)

fat content)? ²							
Total	46 (20,4%)	152 (67,6%)	4 (1,8%)	19 (8,4%)	4 (1,8%)	225 (100%)	

¹ $\chi^2=2,512$, $p=0,642$, $r=-0,071$, $p=0,290$; ² $\chi^2=3,397$; $p=0,494$, $r=-0,101$; $p=0,131$

Analysis of the impact of understanding nutritional information on product labels on beverage consumption (Table 3) shows that respondents who state that they understand nutritional information consume water significantly more often (49.1%), and respondents who said they did not understand nutritional information more often consumed coffee (20.6%), tea (2.9%) and carbonated juices (5.9%).

Table 3. The influence of understanding nutritional information on the consumption of different types of food

Do you understand the nutritional information on the declaration (energy value, sugar, fat content)		How often does he eat this type of food?				Total
		I don't eat fruit	Once a week	Two or more times a week	Every day	
Fruit¹	Yes	0	10 (5,9%)	66 (38,8%)	94 (55,3%)	170 (100%)
	No	1 (1,8%)	11 (20,0%)	24 (43,6%)	19 (34,5%)	55 (100%)
Total		1 (0,4%)	21 (9,3%)	90 (40,0%)	113 (50,2%)	225 (100%)
Vegetables²	Yes	3 (1,8%)	10 (5,9%)	84 (49,4%)	73 (42,9%)	170 (100%)
	No	0	4 (7,3%)	25 (45,5%)	26 (47,3%)	55 (100%)
Total		3 (1,3%)	14 (6,2%)	109 (48,4%)	99 (44,0%)	225 (100%)
Sweets³	Yes	12 (7,1%)	56 (32,9%)	58 (34,1%)	44 (25,9%)	170 (100%)
	No	3 (5,5%)	16 (29,1%)	15 (27,3%)	21 (38,2%)	55 (100%)
Total		15 (6,7%)	72 (32,0%)	73 (32,4%)	65 (28,9%)	225 (100%)

¹ $\chi^2=15,768$, $p=0,001$, $r=-0,222$, $p=0,001$; ² $\chi^2=1,411$, $p=0,703$, $r=0,036$, $p=0,590$; ³ $\chi^2=3,129$, $p=0,372$, $r=0,091$, $p=0,173$

Labelling of the nutritional or nutritional value of food aims to inform the consumer about the energy value of food and the content of certain nutrients, fats, saturated fatty acids, carbohydrates, sugars, proteins, salts, vitamins, minerals, and other nutrients (Krešić 2012.;

Sokolović et al., 2015). Nutritional labelling is the key factor in informing consumers (Carbonneau et al., 2015). A good understanding of information on food products can prevent the occurrence of obesity (Sproesser et al., 2019.; Zhang et al., 2020), but also the occurrence of allergies and other illnesses. The results obtained by Sokolović et al. (2015) show that 51% of respondents partially understand nutritional information, while 26% say they fully understand it, and 24% that they do not understand nutritional information.

Table 4. Influence of advertising content on beverage consumption

		What type of drink do you consume the most?					Total
		Coffee	Tea	Water	Carbonated juices	Still juices	
Have you ever been prompted by advertising content to buy a certain food item? ¹	Yes	42 (25,3%)	4 (2,4%)	105 (63,3%)	13 (7,8%)	2 (1,2%)	166 (100%)
	No	9 (15,3%)	3 (5,1%)	40 (67,8%)	7 (11,9%)	0	59 (100%)
Total		51 (22,7%)	7 (3,1%)	145 (64,4%)	20 (8,9%)	2 (0,9%)	225 (100%)
Do you understand the nutritional information on the declaration (energy value, sugar, fat content)? ²	Yes	35 (20,6%)	5 (2,9%)	118 (69,4%)	10 (5,9%)	2 (1,2%)	170 (100%)
	No	16 (29,1%)	2 (3,6%)	27 (49,1%)	10 (18,2%)	0	55 (100%)
Total		51 (22,7%)	7 (3,1%)	145 (64,4%)	20 (8,9%)	2 (0,9%)	225 (100%)

¹ $\chi^2=4,587$, $p=0,332$, $r=0,086$, $p=0,201$; ² $\chi^2=11,772$, $p=0,019$, $r=-0,333$, $p=0,015$

Of the total number of respondents, 170, or 75.6% said they understood nutritional information (Table 4). Among these respondents, there is a statistically significant influence on daily water and fruit consumption, while there was no statistical significance for other types of consumers.

CONCLUSION

It is assumed that people who understand nutritional information, including the contents of sugar, salt, fat, and the like, will not consume this type of food. However, our research did not confirm this. Our research has shown that eating habits are mostly influenced by media information, but that there is no statistically significant difference in eating habits of the informed and uninformed part of the population (Table 4). We also found no association between nutritional information on the product label and the eating habits of the population. In this regard, we conclude that for this sample we can confirm that ignorance does not affect

eating habits and eating culture, so there is no significant difference in the eating habits of the informed and uninformed population.

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