

## **Food education: factors involved in food selection**

Mădălina Iuga

<sup>1</sup>*Faculty of Food Engineering, Stefan cel Mare University, Suceava,*

*jugamada@yahoo.com*

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### **Abstract:**

*There are many factors influencing a food product selection, even if the most known is health benefits. This study describes the effect size of nine factors such as health, mood, convenience, sensory quality, ingredients, price, energetic value, familiarity and ethical aspects. The most important aspect of each factor was also determined. A questionnaire was applied on a sample of 95 persons aged between 16 and more than 60 years. The summary statistics and the correlation ( $r > 0,2$ ) were applied using Data Analysis package. The results showed that health benefits and the ingredients have the greatest influence, while the convenience and the energetic value were considered as being less important in food choice. The well-being, the taste, the natural ingredients, the good price ratio, the low fat content, the eco-friendly package, the fact that the food product can be bought from shops near their house and people ate it before have a strong contribution in food selection. So, it is important to take all these factors into account when we talk about food education and food practices.*

**Keywords:** *food selection; factor; influence; questionnaire; statistical analysis.*

### **1. Introduction:**

Nowadays food behavior is an important research direction. People become more interested in food composition and ingredients effects on their health. Nutrition education include people information about the nutrition science findings by using different educational and communication methods. However, there are many studies that prove the insufficiency of communication in food education. Often people know what they should eat, but they don't do it (Contento, 2016).

Effective modeling of eating habits assumes understanding the factors that influences food choice. There are many researches regarding the attitudes and beliefs that determine a healthy food behavior (Steptoe, 1995, 267-284). For example, Glanz and collaborators have studied the psychosocial factors that influenced fat and fiber consumption (Eşi, 2014, 131-138; Eşi, 2015, 7-12). They conclude that the health status, the social support, the social norms, self motivation had a grate impact on foodstuff choice (Glanz, 1993, 97-100).

Therefore, health is not the only factor that is involved in people`s diet choice. The cultural influences and food availability are also determinants in food selection. The cultural aspects refers to usual consumption of certain foods and sometimes to restrictions such as foodstuffs exclusion influenced by religious aspects (Satia-Abouta, 2002, 1105-1118). Preferences for some expansive products can be an index for the social status (Stephoe, 1995, 267-284). Also the manufacturing process that affects the sensory qualities of foodstuffs, the marketing and the sheer habit have a great contribution on food selection. Another factors that influence food patterns can be feelings, beliefs, personal attitudes toward food (Contento, 2016).

The aim of this study was to establish the influence of some factors such as health, mood, convenience, sensory quality, ingredients, price, energetic value, familiarity and ethical aspects on food choice. This study wants to underline the fact that not only health impact of foodstuffs can determine peoples food behaviour. There are many others life aspects involved in diet choice.

## **2. Materials and methods:**

### *2.1. Questionnaire*

Questionnaires were applied on 95 people from Romania, aged between 15 and more than 60 yers: 75,8% aged between 15 and 30 yers, 21,1% between 30 and 60 years and 3,2% more than 60 years. 43,2% were from rural environment and 56,8% from urban environment. The reported monthly income was reported as 33,7% < 1000 RON, 53,7% between 1000 and 3000 RON, 12,6% > 3000 RON. The questionnaire was applied online. The importance of each factor in food selection was appreciated using the hedonic test with 5 points scale The sample was selected by random method (Maximo, 1984).

### *2.2. Statistical analysis*

The statistical analysis was performed using Data Analysis package from Microsoft Office Excel 2007 software. The summary statistics and the correlation between factors were applied. Significant correlations were considered for  $r > 0,2$ .

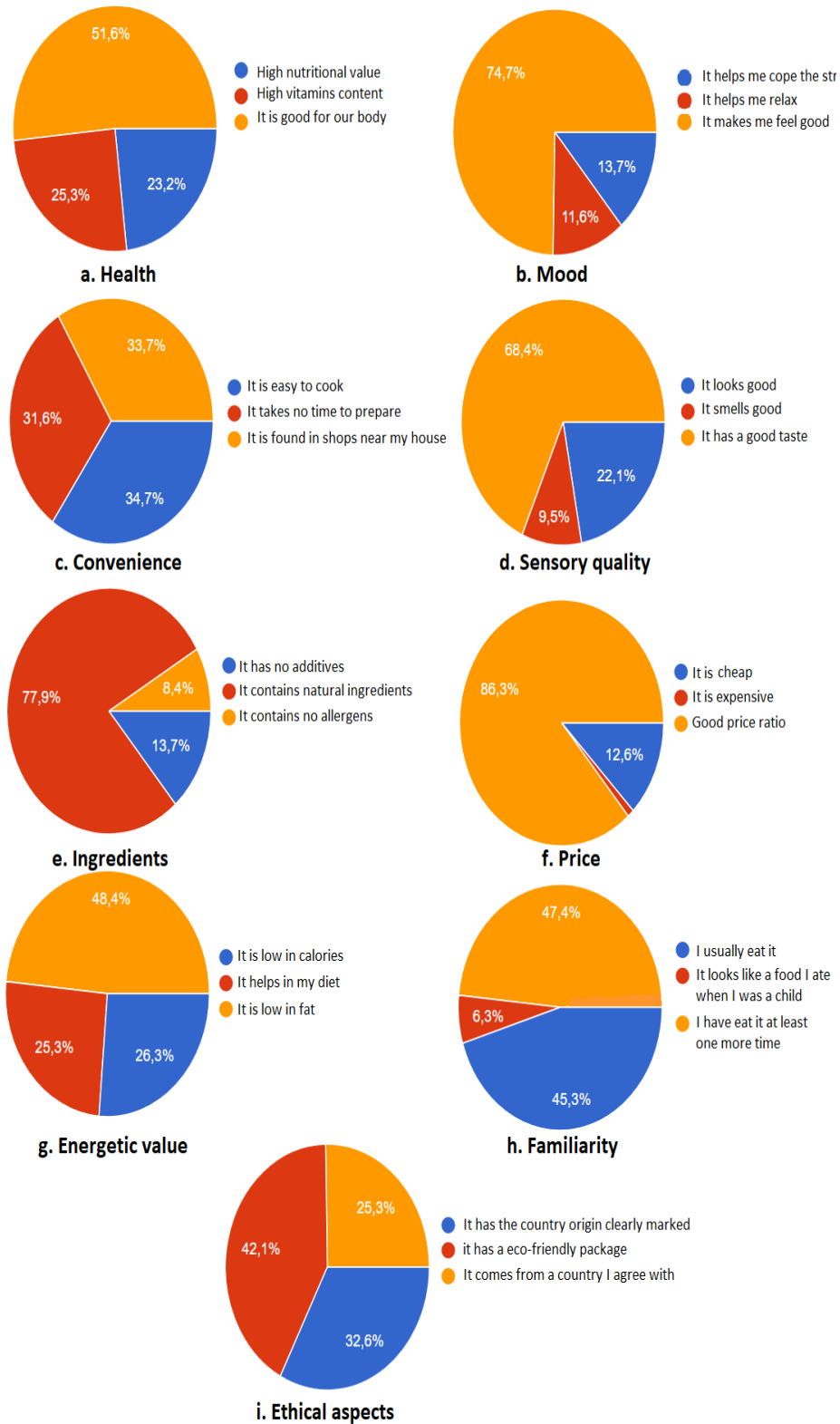
## **3. Results and discussion**

The influence of 9 factors (health, mood, convenience, sensory quality, ingredients, price, energetic value, familiarity and ethical aspects) on food selection were studied. According to Table 1 the health benefits (4,074 points) and the ingredients (4,011) have the greatest influence. The convenience and the energetic value were considered as being less important in food choice.

**Table 1.** Summary statistics and confidence level

<b>Factor</b>	<b>Mean</b>	<b>SD (<math>\pm</math>)</b>	<b>Confidence level (95%)</b>
<b>Health benefits</b>	4,074	0,981	0,200
<b>Mood</b>	3,800	1,145	0,233
<b>Convenience</b>	3,337	1,318	0,268
<b>Sensory quality</b>	3,947	1,035	0,211
<b>Ingredients</b>	4,011	1,116	0,227
<b>Price</b>	3,568	1,200	0,244
<b>Energetic value</b>	2,905	1,337	0,272
<b>Familiarity</b>	3,663	1,117	0,227
<b>Ethical aspects</b>	3,389	1,160	0,236

The investigated population consider that the benefits for various body parts is the most important health aspect (Figure 1). The majority affirmed that the well-being, the taste, the natural ingredients, the good price ratio, the low fat content, the eco-friendly package influences the most their food selection decision. Also the fact that the food product can be bought from shops near their house and the fact that people ate it before can contribute to their choice.



**Figure 1.** Factors that influence food selection

As it is shown in Table 2 there are some positive correlations ( $r > 0,20$ ) between ingredients and health benefits, between the energetic value and the health benefits, the ethical aspects and the health benefits, between convenience and mood, ingredients and mood, sensory quality and ingredients. A negative slow correlation was recorded between convenience and ingredients. The results were similar with those obtained by Steptoe and Pollard (Steptoe, 1995, 267-284).

**Table 2.** Correlations between food selection factors

	A	B	C	D	E	F	G	H	I
A	1								
B	0,080	1							
C	-0,028	0,334	1						
D	0,109	-0,162	-0,010	1					
E	0,407	-0,215	-0,212	0,222	1				
F	0,154	0,285	0,174	-0,018	-0,179	1			
G	0,322	0,147	0,055	0,081	0,129	0,147	1		
H	-0,084	0,138	0,100	0,113	-0,100	0,113	0,028	1	
I	0,348	-0,117	-0,101	0,124	0,136	0,107	0,175	0,078	1

#### 4. Conclusions and proposals

There are many factors, such as health, mood, convenience, sensory quality, ingredients, price, energetic value, familiarity and ethical aspects implied in food selection. The results of this study showed that some of this factors have a greater contribution than other ones, but all of them must be taken into consideration for food education.

The interactions between these factors must be the starting point for future studies for psychologists and nutrition teachers. First of all, it is recommended to do food education even for adult and old people by taking into account not only the health impact of foods, but all the factors implied.

People may influence each other when it comes to buy or not a product, so food education must be done also in non-formal way, not only in school and institutions. Secondly, food education is essential for children.

Trying to change peoples mindset toward unhealthy food is a challange for specialists. This change must start from the young generation because the old one is much more difficult to teach.

### **References**

1. Contento I.R. (2016). Determinants of Food Choice and Dietary Change: Implications for Nutrition Education. In C. I. R., *Nutrition Education* (pp. 31-58). Burlington: Jones & Bartlett Learning.
2. Eşi, Marius Costel. (2015). Adapting and integrating alternative didactics in the teaching-learning-assessment system in relation to the concept of “disciplinary field”. In the *International Journal of Social and Educational Innovation*, Volume 2, Issue 3, 7-12.
3. Eşi, M.C., (2014), The Mission Statement of the Business Organizations by Reference to the Economic Market Requirements, *The USV Annals of Economics and Public Administration*, Volume 14, Issue 2 (20), pp. 131-138.
4. Glanz K., K. A. (1993). Development and validation of measures of psychosocial factors influencing fat- and fibre-related dietary behavior. *Preventive Medicine*, 97-100.
5. Maximo C.G., (1984). *Statistical methods in food and consumer research*, pp. 27-35. Florida: Academic Press Inc.
6. Satia-Abouta J., P. R. (2002). Dietary acculturation: Applications to nutrition research and dietetics . *Journal of American Dietetic Association*, 1105-1118.
8. Steptoe A., Pollard T. (1995). Development of a Measure of the Motives Underlying the Selection of Food: the Food Choice Questionnaire. *Appetite*, 267-284.