THE MANIFESTATION OF HEALTH-CONSCIOUSNESS IN FOOD PREFERENCE AND CONSUMPTION AMONG YOUNG PEOPLE ACCORDING TO AN EMPIRIC STUDY

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SUMMARY

In our study we set out to find answers to the question of how today's secondary schools students in Hungary assessed certain food products. We examined in the target group also the development of relationship between the preference of a certain product and its assessment from the health point of view. We assumed that both the preference and assessment of food for its effects on health were not only influenced by the gender of consumers but also by the type of the school attended and to a large extent by the development level of the region of domicile. In conclusion, young people had shown some signs of awareness of what is healthy eating and they had been able to differentiate between healthy and unhealthy foodstuffs, but their consumption was still significantly dominated by what they considered to be pleasant food. A possible consequence of this finding is that nearly a quarter of young people and a third of boys consider themselves suffering from overweight.

INTRODUCTION

By the end of the 20th Century a tendency in both sociology and marketing was to place behavioral science into the center of research. As a result, the first decade of the 21st Century was called as the decade of behaviorism in scientific circles. This term embraced the hope that the discovery of the laws that govern behavioral science would contribute much to a better quality of living. Furthermore, understanding human behavior may help us to become healthier, happier, better balanced people, who are able to enjoy the perspectives of life. That is why an important part of behavior research is the examination of health-awareness, as various behavioral decisions influencing health often have impacts in the far future rather than immediately. True health-awareness means that we are willing to make decisions, which entail some relinquishment today but the efforts are bound to be fruitful on the long run. The desired better quality of living can be attained if we are able to enjoy life, if we can and dare to be happy, trust in ourselves and find pleasure in our social contacts. To a large extent it is the way of living that is responsible for the state of our health. The behavioral values of the young lay the foundations of their behavior as adults. Therefore it is important to examine how young people value their health today and lead their life.

The objectives of this study were defined on the basis of the fact, that the health of the population of this country is gradually becoming a cause for concern. The picture is even bleaker if we examine the rate of death and life expectancy at

birth. To attain a change in people's attitude (lifestyle, eating habit, conduct, etc) education or "reprogramming" should start as soon as possible. As a first step young people should be purposefully taught about healthy lifestyle, eating habit and a (more) relaxed and a (better) balanced way of life. Why is the emphasis on young people? The above change will not happen from one day to the next. Habits have to be altered which, by nature, are stable, in some cases stiff and regulative, so their transformation is difficult and time-consuming. According to some, even the young people of today could not be diverted from their hardened habits but they can still be taught about the kind of values they should pass to their children. Our task was to survey the habits and values of young people so as to provide future generations with a chance to live in a healthier and a more relaxed world.

In our research we have drawn up the following objectives:

- Study of the priorities in food and eating with special regards to health-awareness.
- Relationship between food preference and perceived health features and its impact on choice and consumption.

MATERIAL AND METHOD

To begin with a preliminary questionnaire survey of a nationally representative sample of respondents was carried out by personal interviews, accordance to a pre-determined sampling method and study plan.

The survey included 1500 persons and the main objective was to obtain a representative sample. A multi-phase process of sampling was used to realize this goal and, as a result, multiple representation was gained. The publications of the Central Statistical Office (KSH) served as a source for selecting the sample.

As a first step, we examined the distribution of full-time students in secondary schools, i.e. in grammar, technical and vocational schools. On the basis of this we formed the element numbers with respect to students of grammar, technical and vocational schools. Next we examined the numbers of male and female students in the different types of schools and defined the ratio of male to female students in the school samples accordingly. Then we examined age categories to select a representative age distribution into our sample. Thus we could examine variables according to the school a student attends, gender as well as age and draw conclusions concerning the entire population. Finally we determined the distribution of students between the various regions (including within Budapest) and the sample population was selected accordingly. The pre-determined process of sampling ensured that the composition of sample population corresponded well to that of the entire population as far as gender, age, school type and county (region) of domicile was concerned.

The selection of students was made in a two-phased random process. In the first phase, a number of secondary schools (grammar, technical and vocational schools) were randomly picked in all counties, regions and in Budapest and a distribution of sample population was chosen to correspond with the distribution of population in the schools. In all 62 schools were contacted by phone. Following a discussion about the objectives of this project, head teachers were asked to select a given number of students (males and females in a given ration) to complete a questionnaire each at a given time. A trained field investigator asked the questions, filled in the questionnaire and analyzed the answers. Upon the completion of survey 1526 completed questionnaires were found to

be analyzable. We used the statistical software package SPSS 10.0 for Windows for analysis, applying simple statistical comparisons, Chi-square test for determining significance and multivariable analysis (ANOVA) for the evaluation of our findings.

THE COMPOSITION OF SAMPLE

Table 1 shows the percentage distribution of student participants according to certain socio-demographical variables.

Table 1

The percentage distribution of participants by gender, school type, age and region

Gender	Male	46%
	Female	54%
Type of school	Grammar school	36%
	Technical school	45%
	Vocational school	19%
Age	14-15	20%
	16-17	66%
	18-above 18	14%
Region	Central Hungary	6%
	Central Dunántúl	12%
	Western Dunántúl	12%
	Southern Dunántúl	11%
	Northern Hungary	12%
	Northern Gr. Plain	15%
	Southern Gr. Plain	13%
	Budapest	19%

RESULTS

When analyzing our findings first we set out to determine the answer to the following question: if young people were asked to assess food from the point of view of health, would they take into account the role of the given product in their own everyday diet. They were asked to evaluate foodstuff on a scale of 1 to 5 with 1 standing for very bad and 5 for very good. Table 2 shows the list of preferences.

Our results show that young people assess the healthiness of certain foodstuff relatively properly if we consider ranking alone. When we take a closer look at the findings, their favorite products (for example, pizza, chocolate, hot dog, hamburger), although listed in the second half of the above table, were not convincingly marked as bad or very bad. Thus we can conclude that young people are aware that their preferred food is not all that healthy, but they like them and therefore they are unwilling to put them down too much. What is the reason behind this? Presumably no one likes to paint a negative picture about oneself, so although they know what they eat is no good, they consider it adequate rather than unhealthy.

To find out if there were a gender difference between food preferences, a variance analysis was carried out (ANOVA). We have found that females were significantly ($p<0.05$) better at correctly labeling foodstuffs as healthy or unhealthy than males. This is presented in Table 3.

Table 2

Certain foodstuffs ranked according to average approval ratings from health point of view

	Average	Deviation
Milk	4.51	0.76
Apple	4.49	0.68
Yogurt	4.22	0.87
Fish	4.20	1.01
Chicken, turkey	4.12	0.86
Brown bread	4.08	0.89
Egg	3.88	0.86
Potato	3.67	0.90
Pork meat	3.16	1.11
Pizza	2.92	1.26
Sugar	2.85	0.94
Chocolate	2.83	1.22
Sweet biscuit	2.80	0.98
Hot dog	2.65	1.25
Hamburger	2.65	1.31

Source: own resource

Table 3

Variance analysis of the assessment of certain foodstuffs from the point of view of health by genders

		Average	Deviation
Yogurt	Male	4.15	0.90
	Female	4.27	0.85
Brown bread	Male	3.93	0.93
	Female	4.20	0.84
Egg	Male	3.97	0.86
	Female	3.81	0.85
Potato	Male	3.78	0.90
	Female	3.58	0.89
Pork meat	Male	3.37	1.09
	Female	2.98	1.09
Pizza	Male	3.20	1.25
	Female	2.68	1.23
Sugar	Male	2.94	0.97
	Female	2.78	0.92
Chocolate	Male	3.00	1.24
	Female	2.69	1.19
Sweet biscuit	Male	2.93	0.99
	Female	2.69	0.96
Hot dog	Male	2.88	1.28
	Female	2.46	1.20
Hamburger	Male	2.88	1.33
	Female	2.45	1.27

Source: own research

Table 3 shows that from the point of view of health assessment there is a decisive difference between males and females in favor of females. Conspicuously, females marked foodstuffs considered healthy in the nutrition literature much higher than males, while males gave noticeably higher marks to foodstuffs not generally recommended. The reason for the difference may be that the so-called masculine and feminine diets develop early among the young. The masculine diet comprises high energy, high fat products and sweets, whereas the feminine diet includes easily digestible plant products, which are nutritiously of greater value. It follows from this, if we compare the body mass index (BMI) of genders obesity should be more characteristic of males than females. We used the Chi-square test to analyze the table and summarized the findings in Fig. 1-2.

Figure 1

Weight-ratio: BMI versus gender BMI

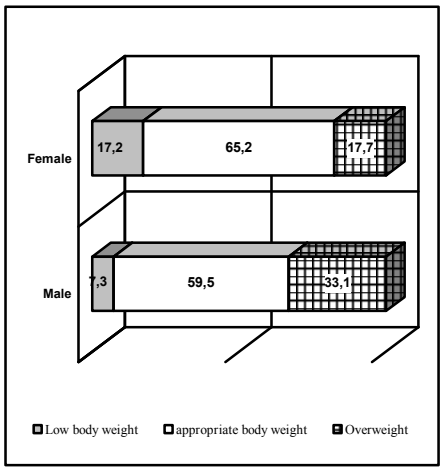
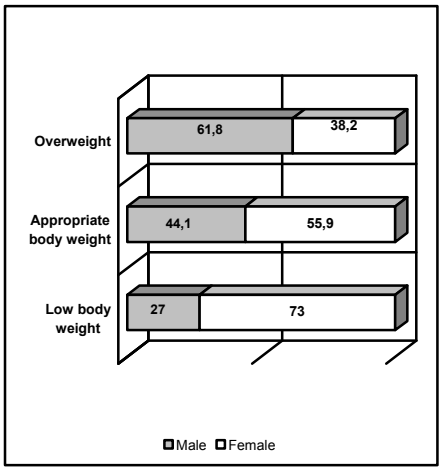


Figure 2

Weight ratio: gender versus BMI



Source: own research

Both figures illustrate that males are more likely to suffer from overweight than females. Nearly two-thirds of overweight students are males. In other words there are roughly twice as many overweight students among males than among females. These findings highlight the need for various kinds of instructions covering the nature of foodstuffs and healthy diets.

The assessment of the health characteristics of foodstuffs included in this study was also investigated in relation to school types, age and region of habitation. Our findings indicated that all of these variables affected how young people judge the health characteristics of various foodstuffs.

Students attending schools leading matriculation were better at judging what is a healthy product of the foodstuffs investigated than students in vocational schools. While the average approval rating of vocational students of lesser-recommended foodstuffs exceeded those of students from the other two types of schools, in the case of highly recom-

mended foodstuffs the ratio has reversed and the approval rating of grammar and technical school students was higher than that of vocational students. Basically this was because children of the lesser-educated stratum of society generally studied in vocational schools and they had home backgrounds of different customs and eating habits. Vocational school students tend to come from an economically less well-off environment and because of their disadvantageous status often they cannot afford to buy foodstuffs of higher category.

Examination of our results in relation to geographical distribution reinforces the above conclusions. Regions with lesser economic potentials (North-Hungary, Northern Hungarian Plain, Southern Hungarian Plain) displayed a higher approval rating for foodstuffs of lesser nutritional value (that is less healthy food) than those of the more affluent regions. In the case of healthier foodstuffs the ratio again reversed and the approval ratings of less well-off regions was lower than those of richer regions. Western Dunántúl where differences are the greatest should be especially highlighted. Economically this is one of, if not the most developed regions, supporting the notion that the level of economic development determines the content and quality of a consumer's shopping basket.

The selection of a foodstuff depends to a great extent on the level of its popularity among the customer's circle of friends and acquaintances. Therefore we have investigated the preference for various (could be called mundane) products among young people. Table 4 displays our findings.

Table 4

Preference for some dairy and meat products among young people

	Average	Deviation
Cheese	4.33	0.86
Yogurt	4.30	0.97
Milk desserts	4.26	0.90
Ham varieties	3.98	1.07
Butter cream	3.84	1.04
Frankfurter	3.76	0.97
Other cold cuts	3.74	0.91
Milk	3.70	1.16
Sour cream	3.65	1.08
Butter	3.64	0.97
Smoked-cooked meat	3.63	1.16
Sausage, salami	360	1.08
Liver products	3,58	1.11
„Párizsi"	3.52	1.07
Flavored milk	3.47	123
Bacon	2.74	1.22
Curd	2.73	1.37

Source: own research

Table 4 shows that dairy products, especially those with flavors, are popular with young people (illustrated well by the 8. place of traditional consumer milk). Of the popular products the last place for kefir is conspicuous. This is probably because of its naturally slightly wry taste, which unlike products in the upper half of the table is not flavored. The fourth place of ham on the preference scale is also noteworthy. This is perhaps because many different kinds of ham with a wide variety of flavors are available in the shops. The range of scatter is interesting. As we approach the bottom of Table 4 scatter becomes increasingly larger, indicating that young people are increasingly divided about the preference for products at the bottom of the list. This division may be explored by examining some background variables. Therefore we carried out variance analysis (ANOVA) for products showing significant differences ($p<0.05$). Table 5 summarizes the outcome according to gender.

Table 5

Variance analysis of gender versus product preference

		Average	Deviation
Yogurt	Male	4.14	1.03
	Female	4.43	0,90
Milk desserts	Male	4.17	0.96
	Female	4.33	0.84
Ham varieties	Male	4.20	0.94
	Female	3.80	1.13
Frankfurter	Male	3.91	0.91
	Female	3.64	1.01
Other cold cuts	Male	3.87	0.88
	Female	3.63	0.92
Milk	Male	3.80	1.16
	Female	3.62	1.16
Smoked-cooked meat	Male	3.93	1.08
	Female	3.37	1.18
Sausage, salami	Male	3.93	0.96
	Female	3.33	1.10
Liver products	Male	3.68	1.05
	Female	3.50	1.15
Bacon	Male	3.10	1.19
	Female	2.43	1.16

Source: own research

Clearly females' preference ratings for milk products exceed those of males, while for meat products preferences are the opposite way around. The following conclusion can be drawn from this and Tables 2 and 3 showing assessments of the healthiness of foodstuffs: it is not an accident that males judge meat products better than females, because their preference for meat products is higher than that of females. An interesting exception is the popularity of consumer milk, which males

prefer better than females. This may be because females prefer yogurt or various milk desserts as a snack or they consider it is enough to have milk just for breakfast or supper. Males on the other hand consume milk as a drink, reflecting a higher preference value.

As for products showing significant differences (<0.05) grammar school students prefer milk desserts better than student in the other two types of schools, but the case for cream cheese, "párizsi" (a kind of salami) and quick-frozen ready meals is the opposite way around. This association is related to the price category of product and students' financial status. Price places milk desserts into a relatively high category; therefore their purchase may cause difficulties for a student of more modest means. Such a product in his/her case counts as a rarely bought luxury item. The low preference of cream cheese and párizsi among grammar school students can be similarly explained. Cream cheese is a flavored milk product, which spread directly over bread can be consumed without additional products such as ham, salami, etc. and therefore it amounts to a smaller cost in the consumer basket. Of meat products párizsi belongs to a cheaper category, and its preference is high among those who consume it frequently, that is among technical school and vocational school students.

The study by regions also support the notion, that a relationship exists between the preference for various products and the level of economic and social development of a given region, consequently the environment does affect young people in compiling their list of preferences for various products. The environment is involved in the broader (economy, society) as well as the narrower sense of the word (school, family). Foodstuffs of higher consumer value (price and quality) are preferred in more developed regions (Budapest, Western Dunántúl) while less beneficial foodstuffs tend to be consumed in less well-endowed regions (Northern Hungary, Northern Hung. Plain).

The preference young people display for certain foodstuffs is not sufficient to judge the level of health awareness they associate with the product. To uncover this discrepancy we asked the students to rank foodstuffs according to their health value. Table 6 summarizes the findings.

Table 6 shows that as expected dairy product were considered healthier than meat products. Furthermore young people's ideas of what foodstuffs are healthy to eat more or less coincide with what modern nutritionists recommend. It is well worth to highlight the high assessment value of kefir. Perhaps this is the point where we can conclude that there is hope in reforming young people's eating habits by appropriate communication and influence. This optimism is supported by the fact that students, although placed kefir last on the preference scale, ranked from the health point of view most popular cheese and yogurt comfortably the first. All in all the different media and channels communicated effectively and well the advantageous characteristics of the above three groups of milk products (kefir, cheese, yogurt).

From examining average ranking, the assessment of meat products is a lot less favorable than that of milk products. (The average value for ham, the highest ranked of all meat products, was only 3.41.) Low average ranking of meat products shows that the examined age group considers this product group relatively unhealthy. This finding presents an ambiguous picture: on the one hand it is pleasing that young people's impression of health so biased towards milk, on the other the negative impression of meat products should be food for thought for the meat industry.

Table 6

Young people's assessments of how healthy dairy and meat products are

	Average	Deviation
Curd	4.50	0.72
Yogurt	4.38	0.70
Cheese	4.22	0.76
Milk	4.04	0.88
Sour cream	3.99	0.83
Butter	3.62	0.86
Ham varieties	3.41	0.97
Butter cream	3.40	0.80
Smoked-cooked meat	3.27	1.02
Flavored milk	3.23	0.87
Other cold cuts	3.18	0.83
Milk desserts	3.15	0.95
Liver products	3.14	0.86
Frankfurter	3.06	0.90
„Párizsi"	3.06	0.94
Sausage, salami	3.00	0.97
Bacon	2.46	1.09
Ready to prepare food	2.31	1.02

Source: own research

Variance analysis of various background variables reinforces the picture that emerged so far. That is both school type and region of domicile affects young peoples' assessment of how healthy various products are. Students of schools leading to matriculation (especially of grammars) considered milk products more favorably than students of vocational schools, whereas in the case of meat products the relationship was reversed. As for regional distribution, the tendency detected so far has again been reinforced, that is young people in economically and socially well-developed regions consider meat products less healthy than young people in regions "lagging behind", whereas in the case of milk products the ratio of assessments was the opposite way around.

Young peoples' preference and health assessment of various products can per se describe the attitude of that age group to given foodstuffs, but a more accurate picture can be obtained if the frequency of their consumption is also given. In this way we can investigate the variable (preference or health) that dominates their consumption. Our findings are summarized in tables 7/a and 7/b, displaying the annual frequency of consumption of various foodstuffs as a function of main background variables. From these data we calculated the annual consumption frequency index, which had been developed by *Szakály (1994)* and modified by *Berke (2003)*. Using this index we can easily follow the number of occasions and days when young people consume a given foodstuff throughout the 365 days of year or we can tell the day on which consumption of a given product occurs.

Table 7/a

Frequency of consumption of dairy products in days

	M	FM	Y	C	CH	B	BC	SC	MD
Total	214.3	104.9	193.1	6.7	203.5	265.6	153.0	125.4	133.5
By gender									
Male	226.8	116.3	180.5	57.5	218.0	269.0	165.0	133.5	131.6
Female	203.7	95.5	203.8	65.4	191.3	262.5	143.1	118.7	135.4
By school type									
Grammar school	225.8	101.6	188.5	60.5	215.8	259.0	140.1	121.2	135.2
Technical school	213.9	102.0	196.3	66.7	198.4	267.8	152.5	122.4	133.8
Vocational school	194.6	117.6	195.6	52.9	191.7	272.7	177.2	140.2	130.1
By BMI									
Low body weight	204.8	92.3	194.4	65.0	198.4	272.3	145.6	118.8	147.5
Appropriate weight	214.0	108.5	192.6	57.3	203.3	263.2	153.2	121.0	133.2
Overweight	218.8	100.9	193.0	70.6	205.0	270.4	156.4	137.3	129.1
By regions									
Central Hungary	226.4	98.4	183.5	59.0	197.6	287.1	156.1	114.4	132.7
Central Dunántúl	234.5	96.2	218.4	63.6	210.3	269.2	148.8	116.8	130.1
Western Dunántúl	202.5	92.1	190.1	86.3	219.7	271.6	140.7	113.8	124.9
Southern Dunántúl	209.2	12.1	178.4	62.3	185.4	262.5	133.4	124.4	130.5
Northern Hungary	216.4	12.3	203.5	64.8	184.4	288.3	163.9	129.8	144.9
Northern Gr. Plains	195.2	10.4	196.6	47.8	193.5	262.0	166.2	129.8	138.6
Southern Gr. Plains	206.5	10.8	180.0	40.4	193.6	239.3	169.0	140.6	128.8
Budapest	226.7	9.7	190.6	69.7	227.5	260.7	145.4	125.6	134.8

M=milk, FM = flavored milk, Y= yogurt, C = curd, CH = cheese, B = butter, BC = butter cream, SC = sour cream, MD = milk desserts

Table 7/b

Frequency of consumption of meat products in days

	P	OC	S/S	LP	B	F	H	SC	RP
Total	141.1	180.4	137.8	107.5	52.1	97.9	121.7	101.7	73.7
By gender									
Male	148.6	190.3	167.8	118.1	76.7	113.0	143.4	126.8	81.7
Female	135.3	172.0	111.8	98.7	31.0	85.2	103.2	75.4	66.8
By school type									
Grammar school	130.2	170.4	130.8	93.5	42.9	86.9	125.0	91.2	68.6
Technical school	138.7	185.4	139.1	112.3	53.9	98.1	119.0	102.1	71.9
Vocational school	166.9	186.4	146.7	122.2	65.6	118.7	121.4	119.7	86.1
By BMI									
Low body weight	141.5	182.6	154.5	116.5	51.2	95.8	116.0	97.5	70.0
Appropriate weight	134.9	178.0	134.1	101.8	50.6	93.4	120.6	98.4	70.1
Overweight	155.4	183.7	140.6	116.1	54.3	108.9	127.8	111.0	83.5
By regions									
Central Hungary	121.8	187.9	135.2	107.9	52.7	101.2	131.5	105.0	83.7
Central Dunántúl	138.1	178.0	121.5	111.1	58.3	94.3	97.8	90.8	69.5
Western Dunántúl	128.7	170.5	153.7	103.5	45.9	86.9	101.5	84.8	57.9
Southern Dunántúl	159.2	183.1	143.3	105.9	51.2	92.5	87.3	90.0	80.0
Northern Hungary	166.8	196.7	137.9	114.9	51.2	117.0	145.4	120.1	77.5
Northern Gr. Plains	147.6	176.4	126.3	108.7	54.6	109.8	133.8	114.2	79.3
Southern Gr. Plains	141.2	158.7	138.6	102.0	48.5	80.5	105.1	100.9	66.8
Budapest	126.7	192.4	143.8	106.9	53.7	100.4	152.5	104.2	76.9

P = „Párizsi", OC = other cold cuts, S/S= sausage, /salami, LP= liver products, B= bacon, F = frankfurter, H = ham varieties, SC= smoked-cooked meat, RP = ready to prepare products

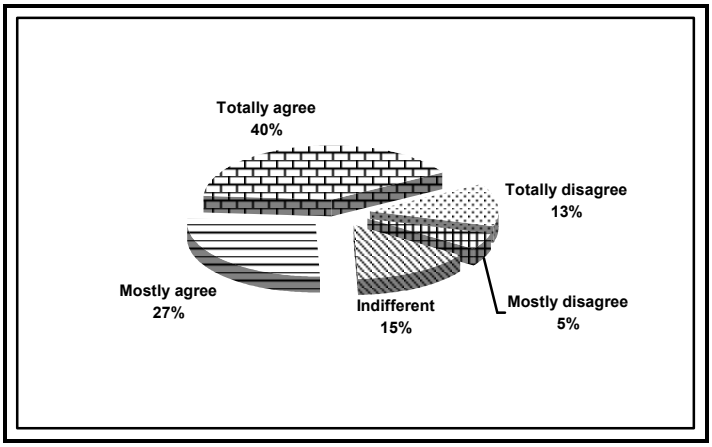
Source: own calculation

The calculation of the index is made as follows: we multiply the percentage of "daily" consumers by 366, that of the "several times a week" consumers by 183, the "once a week" consumers by 122, the "monthly" consumers by 24, the "rarely" consumers by 6 and the percentage of "never" consumers by 0. We calculate percentages from the sum of products showing the number of occasions consumption occurs within a year.

Of the data in the tables one particular product has to be discussed separately, because of apparent contradiction on the first sight. This product is butter. From the tables it appears that butter is the most preferred product of young people; it is consumed once in 1.5 days, while data from the Central Statistical Office (KSH) indicates an extraordinarily low level of butter consumption in this country (0.9-1.0kg per annum). Young people's "butter" consumption apparently contradicts this fact. The use of inverted comma is deliberate, because we think the term "butter" consumption includes also that of margarine, which is rightly or wrongly regarded as a milk product and used synonymously with butter. That is because presumably the majority of young people cannot differentiate between butter and margarine. The proof of this hypothesis is depicted from Fig. 3.

Figure 3

Percentage of young people agreeing with the statement „ *Margarine is a dairy product*"(%)



Source: own research

Fig. 3 speaks for itself and it is appalling! In all 40% (!!!) of young people are entirely convinced that margarine is an animal product. The image of the relevant branch can be further damaged, if we include the "mostly agreeing" and "indifferent" young people into the disinformed and unsure category, which constitutes 82% of young people!!! In the light of this revelation the high frequency of "butter" consumption is hardly surprising. Nevertheless, experts should consider the reasons for the spread of such a belief among young people. (For example, advertisements frequently emphasise that margarine is free of cholesterol. This is correct, because it derives from vegetable oils free of cholesterol, which occurs typically in

animal fats. The message excludes include this last piece of information, however. When a young person hears the word "cholesterol" he/she assumes that margarine is an animal product, from which cholesterol was extracted or did not include it in the first place. We think the advertisers should in future rephrase their adverts and emphasise the vegetable origin of margarine and not the fact that it is cholesterol free.)

We considered it appropriate to analyse the eating habits of young people not only in the customary areas, but also in other categories, which may influence them in purchasing and consuming various products. These categories include the characteristics expected of foodstuffs such as quality, nutritional value, utility value or economy. It could be essential to determine whether the utility value or nutritional value carries greater significance for young people. Table 8 displays how various characteristics are weighted among young people.

Table 8

The characteristics of dairy and meat products weighted among young people

Features of dairy products	Average	Deviation	Features of meat products	Average	Deviation
Fresh	4.86	.41	Fresh	4.83	.47
Rich in vitamins	4.60	.66	Tasty	4.62	.64
Tasty	4.57	.65	Clean, free from chemicals	4.49	.85
Clean, free from chemicals	4.50	.83	Delicious	4.33	.83
Rich in minerals	4.35	.85	Rich in vitamins	4.30	.87
Protects health	4.34	.81	Protects health	4.20	.92
High Ca content	4.24	.91	Rich in minerals	4.12	.96
Helps digestion	4.18	.80	Helps digestion	4.01	.93
Delicious	4.18	.78	Contents clearly displayed	3.99	1.04
Contents clearly displayed	3.98	1.04	Longer life	3.98	1.04
Wide range of flavor	3,91	97	Wide range of flavor	3.91	99
Longer life	3.79	1.07	Low fat	3.84	1.06
Low fat	3.78	1.07	With trademark	3.55	1.21
Low sugar	3.62	1,02	From domestic material	3.47	1.17
Reduced salt	3.53	.92	Reduced salt	3.47	.96
With trademark	3.47	1.22	Low energy	3.26	1.05
From domestic material	3.36	1.09	Nicely wrapped	3.25	1.16
Can be re-sealed	3.28	1.25	In several shape	3.21	1.10
Cheap	3.17	1.13	Cheap	3.08	1.16
In several shape	3.15	1.10	Not smoked	3.07	1.06
Branded, well-known	3.13	1.00	Can be re-sealed	3.02	1.27
Low energy	3.10	1.06	Branded, well-known	2.97	1.13
Nicely wrapped	3.10	1.16	Special offer	2.95	1.21
Easy to open	2.85	1.28	Easy to open	2.80	1.25
Special offer	2.85	1.23	Easy to open	2.50	1.22
Redeemable	2.74	1.24			
Well- advertised	2.47	1.14			

Source: own research

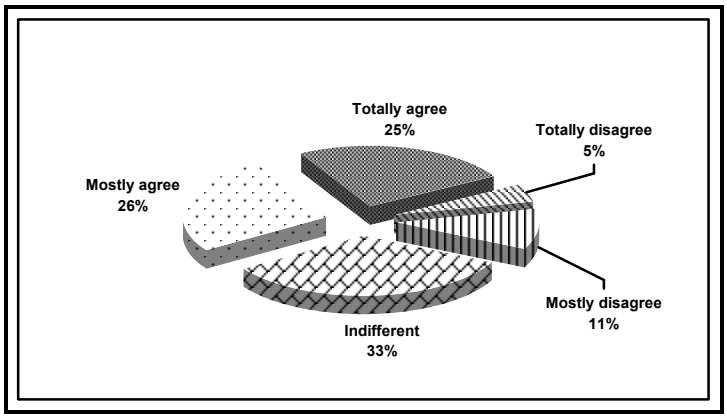
Data in Table 8 allows us to conclude that young people care less for the utility of foodstuffs and much more for the taste and nutritional value. Scatter values on the other hand indicate relatively high variability for two-thirds of products, thus young people's assessment varied over a relatively large range. To eliminate these

variations and to better interpret the variables, we carried out factor analysis on the data and found that nutritional factors were more important for young people than utility factors and that pleasant taste tends to be pushed into the background, even though they ought play a more dominant role on the basis approval ratings. The reason for this is to be found in marketing communications, which place the emphasis primarily on nutritional value, utility and perhaps practicability, while basic expected characteristics such as freshness, tastiness and appetizing appearance are somewhat neglected.

With this information in mind an important question is if young people had to choose between various foodstuffs/meals, would taste or healthiness constitute the basis of their decision? Our findings so far would indicate, that taste would prevail and if they had a choice the vast majority of young people would consume tasty food to the detriment of their health. Fig. 4 also supports this assumption.

Figure 4

Percentage of young people agreeing with the statement „*I would rather consume tastier food even if it does not do good to my health*." (%)



Source: own research

CONCLUSIONS

Our findings are not surprising; nevertheless they are food for thought for specialists in this field. The task is given: young people will have to be persuaded as quickly as possible to shift the ratios in Fig. 4 towards health. This work will not be simple or problems free, because managers will have to work together whose interests and objectives are sometimes in direct conflict. In our opinion the greatest task awaits three groups of specialists: nutritionists, marketing and communication managers and last but not least teachers. Their cooperation is essential; because separately neither group would be able effect the required changes in society on long term.

The results of this study may be concurrently used in several fields, of which we would specially highlight the following:

– *Corporate sector:* The food processing industry could gain vital and precious information about the future; about how they should develop their range of

products in years, decades to come by taking into account eating habits but continuously highlighting health-consciousness as a "new demand".

– *Society, media:* Consumers and society have to be continuously informed about research results concerning health and healthy way of life by using the appropriate marketing and communication means. While information exchange occurs in scientific circles only, the general public cannot be expected to acquire a lifestyle, a way of thinking that involves the recognition of health-consciousness as a valuable asset.

– *Politics, legislation:* Unfortunately most researches in this country concerning health, health status or health-consciousness carry few positive findings. Therefore we consider it paramount, that these problems should be on the daily agenda of the highest level of government in this country. We are convinced that research will yield information, which will make legislators think and direct their attention to the need to watch and analyze young people's eating habit, because they are the foundations of future society.

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