

EATING HABITS OF STUDENTS FROM THE FACULTY OF SPORT AND THE FACULTY OF MEDICINE

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Abstract. *Introduction: Nutrition is an external factor that contributes a lot to maintaining a person's health. Methodology: The study was conducted on a group of 114 students from the Faculty of Physical Education and Sport (51 cases) and the Faculty of Medicine and Pharmacy (63 cases), both in Iași. Students were asked to complete a weekly food frequency questionnaire for the consumption of cheese, meat, cereal and potato derivatives. The questions focused on two directions represented by the presence of certain food groups in their menus and their preferences for certain snacks. The results were processed using Pearson's Chi-Square test. Results: The dominant intake of cheese is 2-3 times a week (37.71%) as well as the consumption of chicken (47.36%). Pork is consumed less (once a week - 32.45%) than beef (zero - 54.38%). Cereal and potato derivatives are mostly present in menus 2-3 times a week (50.00% and 49.12%, respectively). The differences calculated per community are statistically insignificant, which draws attention to the existence of similar eating habits in the investigated students. Conclusion: The existence of similar eating habits is an aspect from which it is necessary to start when developing coherent nutritional education programmes.*

Keywords: eating habits, physical therapy students, medical students.

Introduction

“Food is the only source of energy for humans. In addition to energy in the form of carbohydrates, fats and proteins, it also contains the necessary substances to carry out important biological processes - vitamins and minerals. A varied diet can provide up to 100% of all the necessary substances” (Dzimbova et al., 2020, p. 1).

In recent years, eating habits have undergone a major change in young people due to their identification with the current ideal of beauty. The thin young woman and the young man with well-developed muscle mass are highly appreciated. Many teenagers and young adults have a normal physical development, but they think they do not correspond to their ideal, so they become dissatisfied with their body appearance. There are many situations in which people face problems related to the difference between their real body appearance and their body image (Abălașei & Trofin, 2016). There are also numerous situations in which the perception of one's own body is distorted, even if in reality there are no major problems with body weight and body mass index (Chung et al., 2019; Manyanga et al., 2014).

Obesity occupies a leading place among nutrition-dependent disorders and is considered the disease of contemporary civilization (Zavalișca & Corman, 2019). In this context, adolescents and young adults resort to excessive diets that can affect their health and generate the risk of progression to severe nutritional imbalances such as anorexia (Neumark-Sztainer, 2015).

The situation is even more complicated for female students who want to be courted and appreciated by men, which is why they feel the need to be thin (Bandeira Lima et al., 2019).

Studying students' nutrition is important for both their health and professional career. Physiotherapists will come into contact with obese people who need to lose weight because they have serious health problems. These patients should be carefully guided towards exercise and a proper diet. If no nutritionist is available, recommendations should be made by the person conducting the exercise, who should be aware of the risk of an unbalanced diet even when patients use to perform exercise (severe lipothymia may occur when the carbohydrate intake is low) (Naseer et al., 2018).

The issue should be studied with great care in the case of patients with impaired health, for instance, those who have suffered a stroke. They may have serious swallowing problems that aggravate existing imbalances. The diet of these patients needs to be carefully assessed and ensured because there is a risk of triggering protein malnutrition associated with worsening muscle atrophy (Lucaci et al., 2018). The recovery programme does not have much success when the muscle is atrophied due to protein imbalance. Also, osteoporosis occurs easily when the bone structure is affected and there is a risk of fracture at the slightest movement (Albu et al., 2001). In these patients, nutrition becomes essential, being practically an integral part of their recovery programme.

When assessing food habits, a number of population-specific elements should also be taken into account, such as the strong anchoring in traditions of the families living in a certain area (in the present research, Moldova). Numerous studies (Demirici & Toptaş Demirici, 2018) show the existence of similar eating behaviours even if the economic levels of families are different. There are aspects that need to be carefully monitored because the recommendation to give up eating certain foods for health reasons may be unacceptable to some patients. Special attention should also be paid to people who do not eat a particular food, because the idea of “dislike” has been introduced and must be respected. One cannot insist on the need for the presence in menus of a food that is not approved by someone for various reasons.

The *objectives* of this study are: knowing the eating habits of students; assessing the differences that appear or do not appear between the eating habits of students from two faculties in Iași; assessing the current eating mistakes of these students and the intensity with which they manifest (special attention should be paid to students who choose the zero option, which means the absence of a product or even a food group in their menus).

Methodology

The study was conducted on a group of 114 students from the “Alexandru Ioan Cuza” University in Iași, Faculty of Physical Education and Sport, Physical Therapy Section (51 participants), and from the “Grigore T. Popa” University of Medicine and Pharmacy in Iași, Faculty of General Medicine (63 participants). Physical therapy students were in their third year of study, and medical students were in their fourth year of study. These young people were asked to complete a weekly food intake questionnaire. The questions focused on two directions represented by the presence of certain food groups in their menus and their preferences for certain snacks.

- The food group included products of animal and vegetable origin. Cheese and the three varieties of meat studied - chicken, pork, beef - were included in the category of animal products. The category of vegetable products included cereal derivatives (pasta, rice, semolina, biscuits) and potatoes. The response options were: zero per week; once per week; 2-3 times per week; 4-6 times per week; daily.

- The preference for a certain snack was assessed with the help of a question in which students were asked to mark one or more options for favourite snacks represented by: fruit; sweets; vegetables; pastry; chips.

The results were processed using Pearson’s Chi-Square test.

Results

The study is focused on two main directions represented by the weekly intake of foods of animal and vegetable origin along with favourite snacks.

Regarding the weekly food intake, we will insist on the consumption of cheese, chicken/pork/beef, cereal derivatives and potatoes.

Cheese is mostly consumed 2-3 times (37.71%) or once (28.07%) per week, which indicates a rather modest intake. 9.64% of students marked the zero option, which was totally unexpected and not adapted to the rational nutrition norms, which recommend their daily consumption (Table 1).

Table 1. *Frequency with which cheese appears in students’ menus*

Intake	Zero	1/week	2-3/week	4-6/week	Daily
Physical therapy students	4	13	25	7	2
Medical students	7	19	18	11	8
Total number	11	32	43	18	10
%	9.64	28.07	37.71	15.78	8.77

The calculated differences are statistically insignificant ($p > 0.05$, $f = 4$, $\chi^2 = 6.470$), which indicates the existence of similar eating habits in the surveyed students. This aspect should be carefully monitored because medical students have the necessary information but their eating habits do not undergo a major change.

Chicken/pork/beef are the types of meat commonly consumed by the population of our country. Pork has long been considered traditional, at least for the area of Moldova, but is now less and less consumed. It is obvious the preference for chicken that has a low caloric value (140 kcal per 100 g product), so it does not fatten. The dominant intake is 2-3 times (47.36%) or 4-5 times (33.33%) per week, with 7.01% daily responses (Table 2).

Table 2. *Weekly chicken intake*

Intake	Zero	1/week	2-3/week	4-6/week	Daily
Physical therapy students	1	2	25	20	3
Medical students	3	8	29	18	5
Total number	4	10	54	38	8
%	3.50	8.77	47.36	33.33	7.01

The calculated differences are statistically insignificant ($p > 0.05$, $f = 4$, $\chi^2 = 4.116$), which highlights the existence of similar eating habits in the investigated students. This aspect should be carefully monitored because it focuses on a particular situation represented by the strong anchoring in traditions of the population living in the area of Moldova.

Pork is less and less consumed, with 35.08% of students opting for the zero intake response and no cases of daily consumption (Table 3).

Table 3. *Presence of pork in students' menus*

Intake	Zero	1/week	2-3/week	4-6/week	Daily
Physical therapy students	12	17	20	2	0
Medical students	28	20	14	1	0
Total number	40	37	34	3	-
%	35.08	32.45	29.82	2.63	-

Most students report a consumption of 1 time (32.45%) or 2-3 times (29.82%) per week, the calculated differences being statistically insignificant ($p > 0.05$, $f = 3$, $\chi^2 = 6.939$). This aspect should be in the attention of future specialists because many patients are strongly anchored in traditions, which is why changing their eating habits will be quite difficult.

Beef is the third meat assortment studied. In this case, the situation is even more difficult because more than half of the young people surveyed do not consume it (Table 4).

Table 4. *Weekly consumption of beef*

Intake	Zero	1/week	2-3/week	4-6/week	Daily
Physical therapy students	23	14	12	2	0
Medical students	39	20	4	0	0
Total number	62	34	16	2	-
%	54.38	29.82	14.02	1.75	-

Most students state that they eat beef 1 time (32.45%) or 2-3 times (29.82%) per week, the calculated differences being statistically insignificant ($p > 0.05$, $f = 3$, $\chi^2 = 6.939$). This aspect should be in the attention of future specialists because many patients are strongly anchored in traditions, which is why changing their eating habits might be quite difficult.

At this point, we draw attention to the different results obtained by type of faculty. Thus, a high percentage of medical students had the zero option for this product ($\chi^2 = 9.827$), so it would be possible to change their eating habits, but this is difficult and should be very carefully done by specialists. The results obtained for meat are not worrying because they can opt for different varieties, which is a positive element for students but especially for patients. Even if certain food restrictions are necessary, the basic element is to ensure a varied diet that can stimulate the consumer's appetite.

Cereal derivatives are pasta, rice, semolina and biscuits. These products provide a high caloric intake, which is why they are avoided by many young people. Most of them report a consumption of 2-3 times per week (50.00%), but there are also 12.28% negative responses (Table 5).

Table 5. *Orientation of students towards cereal derivatives*

Intake	Zero	1/week	2-3/week	4-6/week	Daily
Physical therapy students	9	9	28	2	3
Medical students	5	13	29	12	4
Total number	14	22	57	14	7
%	12.28	19.29	50.00	12.28	6.14

The calculated differences are statistically insignificant ($p > 0.05$, $f = 4$, $\chi^2 = 8.003$), which is already a common element of this food survey, drawing attention to a strong anchoring in traditions of the population that lives in the area of Moldova.

Potatoes are common vegetables for the consumer in our country, but here too we have surprises because 6.14% of young people mark the zero option, which is an unexpected result for the population of Moldova. The dominant intake is 2-3 times (49.12%) per week but this is not worrying because other types of vegetables are also consumed. At the same time, there is no excessive orientation towards vegetables that have a modest caloric value (20-50 kcal per 100 g product), which suggests the idea of excessive concern for one's own body appearance (Table 6).

Table 6. *Students' preference for potato consumption*

Intake	Zero	1/week	2-3/week	4-6/week	Daily
Physical therapy students	2	8	30	10	1
Medical students	5	19	26	13	-
Total number	7	27	56	23	1
%	6.14	23.68	49.12	20.17	0.87

The calculated insignificant differences ($p > 0.05$, $f = 4$, $\chi^2 = 6.425$) are no longer a special aspect.

The second element studied refers to students' favourite snacks. Their responses are interesting because there is a major concern for fruit (55.26%) and less concern for sweets (36.84%). Sweets are consumed with pleasure by students from both faculties, the calculated differences being statistically insignificant ($p > 0.05$, $f = 1$, $\chi^2 = 2.364$) (Table 7).

Table 7. *The type of snack preferred by students*

Snack	Physical therapy students	Medical students	Total
Fruit	31	32	63 – 55.26%
Sweets	14	28	42 – 36.84%
Vegetables	3	7	10 – 8.77%
Pastry	10	16	26 – 22.80%
Chips	5	4	9 – 7.89%

Discussion

In addressing food-related issues, we need to start from the characteristic of our population, which is represented by the strong anchoring in traditions. Eating habits change little, especially in adolescents, even if there are no financial problems or different trends appear (Albu et al., 2015).

Another aspect that should be brought to the attention of specialists is related to the idea of “dislike”, which tries to explain the absence of consumption of a certain type of food. In the study group, the zero option is present in 9.67% of students for cheese, 3.5% for chicken, 35.08% for pork, 54.38% for beef, 12.28% for cereal derivatives and even 6.14% for potatoes. In young adults in Turkey, there are 21.4% negative responses for cereals, 13.2% for meat, 6.3% for fish, 9.5% for eggs, 10.0% for vegetables and 8.6% for sweets and fruit (Demirici & Toptaş Demirici, 2018). These negative responses should be carefully considered when making recommendations to a patient. In case of obesity and hypercholesterolemia, it is recommended to give up pork and focus on chicken and beef. Unfortunately, beef is not very popular, so focusing on a single type of meat is ineffective.

The dominant cheese intake for students is 2-3 times (37.71%) per week, which is not adapted to the legislation in force where the daily presence of cheese in menus is recommended. For adolescents in Morocco, cheese is present in menus twice (38.6%) or once (31.9%) a week, with 5.7% negative responses (Misaa et al., 2018). The geographical distances are large but the responses are similar, which requires the attention of specialists from various countries.

The favourite meat of students from the area of Moldova is chicken (2-3 times per week - 47.36%; 4-6 times per week - 33.33%) due to the ease with which it can be cooked and its modest fat content. In students from Rawalpindi (Pakistan), the dominant intake of chicken is 2-3 times (50.4%) or once (29.00%) per week, which highlights the existence of differences that need to be known (Naseer et al., 2018). These differences in eating habits are related to the economic situation, the specific products but also some religious beliefs characteristic of each area (there are areas where beef or pork is not consumed).

Cereal derivatives should be carefully studied because they are rich in carbohydrates, providing a high caloric intake. At the same time, they are rich in protein and removing them from the menus is therefore risky. In the study group, the dominant contribution is 2-3 times (50.00%) per week. In a group of students from Iași, the dominant response is once per week (52.7%), a situation generated by their identification with the current ideal of beauty (Albu et al., 2015). Students reconsider their priorities, so there is a slight increase in intake.

Potatoes are widely present in the menus of our country. The dominant intake of 2-3 times a week does not raise problems because other types of vegetables are also consumed. Young people in Rawalpindi (Pakistan) report a dominant intake of vegetables 2-3 times a week (46.7%), and those in the south-eastern part of Iran, once or twice a week (40.31%) (Naseer et al., 2018; Shahraki-Sanavi et al., 2017). The results of numerous studies reveal the specifics of food in different geographical areas.

The students' favourite snack consists of fruit, which is an important aspect because it has a number of nutritional qualities but is low in protein and fat. Fruit should be present in the menus in adequate but not exaggerated quantities (due to its modest caloric value). Young

women in Alexandria claim a dominant intake of fruit three times a week or less (40.4%) and vegetables, three times a week or less (52.3%), so they are not interested in controlling their body weight through excessive fruit and vegetable intake (Emara et al., 2018).

There is a need for coherent nutritional education programmes developed since school. Young people in the United States believe that these programmes should be supported by parents (82.5%) or coaches (80.0%). Additional information related to nutrition and exercise (50.0%), healthy eating (55.0%) and preferred snacks (47.5%) is required. This information should be provided in focus groups (47.5%) or by coaches (37.5%). (Partida et al., 2018)

Conclusion

There are many problems related to the nutrition of physical therapy and medical students. The insignificant differences obtained are very important because they highlight the existence of similar eating habits in young adults. Medical students do not tend to change their diet even if they have the necessary information.

There are important aspects for the health of both future specialists and their patients. Recommendations will not always be appropriate if their own eating habits are not suitable.

There is a need to develop coherent nutritional programmes that guide the population towards a diet that really contributes to maintaining a good health status.

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