

The Assessment of the Time Allocated to the Physical Activity and Food Behaviour of a Lot of Adolescents from 2 Highschools in Suceava

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Abstract

In the framework of the external factors that influence the growth/development of the students, sports activity and alimentation play an essential role.

Material and method: The study was conducted on a batch of 98 teenagers from 2 highschools in Suceava. They filled in a questionnaire with questions relating to the time allotted for physical activity and dietary habits. **Results and discussion:** in most cases the students allocated daily physical activity between 15 and 60 minutes (54.08%). The dominant contribution of milk is 2-3 times per week (31.63%) and chicken meat (51.02%). The result is unsatisfactory, which highlight the problems related to the consumption of food products of animal origin. Cooked vegetables are present in the menus especially 4-7 times (36.73%) and bread (72.44%). **Conclusions:** the time allotted for daily activities is pretty modest and the intake of animal origin products is low.

Keywords: physical activity, food behaviour

Introduction

Growth and development are two processes which characterise the first 20 years of the life of a person. They are influenced by the action of domestic factors (genetic) and external (environment). Balanced diet is essential for the harmonious development of a child (Gavat, Albu and Petrariu, 2006).

In the present appear a series of issues related to the appearance of the body pattern and the identification with the current ideal of beauty. Special circumstances appear in female gender, where the identification with the current ideal of beauty requires recourse to release cures sometimes exaggerated. Teenage years has a body weight appropriate to its height, but which does not correspond to the ideal dream, which leads to the appearance of dissatisfaction related to his own body (Hima, Meenu and Priti, 2017). The best solution would be that of achieving a balanced diet, and the increase in consumption by practicing a systematic approach to physical exercise.

Frequent chaotic slimming treatments are used that can cause serious imbalances. Girls have truncated or incorrect information obtained from various sources that have been “successful” in achieving the proposed goal. No specialist sources (nutrition or school hygiene) are used and there is little focus on systematic sports practicing.

Sustained physical activity will increase the body’s energy consumption, improve metabolic responses, and balance body weight. It will improve the function of the respiratory and cardiac apparatus, the proper development of the bone and muscular system (Albu, Indrei and Cărașu, 2018).

One aspect that needs to be carefully discussed is about the development of the bone system and growth in height. The height of the child is genetically determined, so there is a positive correlation between the height of the child and that of the parents, between the heights of the brothers. Physical activity and balanced nutrition will allow the young person to make the most of his genetic potential. A young that have a parent from 1.70 m height will not reach 1.90 m, no matter how much he does and no matter how well he fits.

Under conditions where physical activity is poorly represented, rapid weight loss may be achieved, followed by an increase in weight as fast as the least change in diet.

Study Objectives: Evaluating the time spent by students on exercise; gender differentiation because girls tend to move less than boys; knowing the eating habits of young people in the study group; appreciating the differences that occur between the eating habits of girls and boys.

Material and methods

The study was conducted on a group of 98 students from two high schools in the city of Suceava. There are 48 pupils from the “Al.I.Cuza” Technical College and 50 students from the “Dimitrie Cantemir” Economic College. Students are in the 9th grade and are between the ages of 14 and 16. The results will be presented by gender and not by community. 58 young males (59.18%) and 40 females (40.81%) were examined. These youngsters were asked a questionnaire on time spent on physical activity and weekly consumption of some foods. Food habits are studied with a weekly frequency questionnaire of food consumption.

- During a day while doing sports or other physical activities (in minutes)?: Under 15 minutes; between 15 and 60 minutes; over 60 min.

- How many times a week you consume milk, chicken, other vegetables - cooked or bread: zero - once - 2/3 times - 4/7 times. The results were processed using the Pearson test.

Results

The study is oriented on two principal directions of physical activity and nutrition.

The daily exercise time for most students is between 15 and 60 minutes (54.08%) (Table I).

Table I. Daily time allocated for sports by the students

	Under 15 min.	15-60 min.	Over 60 min.
Girls	10	27	3
Boys	5	26	27
Total	15	53	30
%	15.31	54.08	30.61

Draw attention 25% female and 8.62% male subjects who exercise less than 15 minutes daily. The calculated differences are statistically significant at a $p < 0.001$ ($f = 2$, $\chi^2 = 18.007$) and highlight a modest concern for girls for this way of controlling their own body weight. Girls are more interested in slimming belts with “spectacular” results than systematic exercise that would help maintain health.

Feed evaluation is done for products of animal origin (milk, chicken) and vegetable.

Milk is a aliment that has a special nutritional value (rich in protein and animal fat, carbohydrates, vitamins and mineral salts), but a modest calorie (50 kcal / 100 ml). Moderate caloric intake makes it advisable for regimens aimed at maintaining body weight constantly.

Balanced consumption (4-7 times) occurs only in 17.34% of cases, which is an alarm signal for the specialists in the field. There are many situations where he is not consumed (21.42%) or is present in menus only once a week (29.59%). In fact, in 50% of cases milk is missing or is present in menus in almost insignificant amounts (Table II).

Table II - Weekly milk intake

Per week	Zero	Once	2-3 times	4-7 times
Girls	11	10	12	7
Boys	10	19	19	10
Total	21	29	31	17
%	21.42	29.59	31.63	17.34

The results obtained on sex are worrying because the calculated differences are statistically insignificant ($p > 0.05$, $f = 3$, χ^2

= 1.946). Students in the study group have the same wrong eating habits, which is a health risk factor.

The need for animal protein can also be ensured by proper meat consumption. Chicken meat is preferred because it is rich in protein (21.4 g / 100 g product), low in lipids (6.8 g / 100 g of product) and offers a modest caloric intake (151 kcal / 100 g of product) (Pop, Stef and Pop , 2009).

Dominant input is 2-3 times a week (51.02%) worrying as pork is more and more rarely present in menus. Consumption balanced (4-7 times) is asserted by only 32.65% of students (Table III).

Table III - Frequency with which chicken meat appears in menus

Per week	Zero	Once	2-3 times	4-7 times
Girls	1	8	20	11
Boys	1	6	30	21
Total	2	14	50	32
%	2.04	14.28	51.02	32.65

Differences calculated by gender are statistically insignificant ($p > 0.05$, $f = 3$, $\chi^2 = 2.229$) and highlight the existence of similar eating habits in the families of the students questioned. Zero (2.04%) and one-time responses (14.28%) are worrying because there is a risk of triggering some protein imbalances.

Cooked vegetables are present in menus especially 4-7 times (36.73%) or 2-3 times (31.63%) per week. We need to insist on vegetables and especially on cooked foods because they contain little vitamin C, which is destroyed by boiling. Their nutritional value is given by the appreciable content of carbohydrates, vitamins and minerals (Table IV).

Table IV - The presence of cooked vegetables in the menus of the students questioned

Per week	Zero	Once	2-3 times	4-7 times
Girls	6	9	10	15
Boys	7	9	21	21
Total	13	18	31	36
%	13.26	18.36	31.63	36.73

It is not possible to ensure the daily needs of proteins, lipids or calories just by eating vegetables. It is a situation that must be carefully watched because there are various “successful” menus on the internet, such as eating a whole day only cabbage. Differences calculated by gender are statistically insignificant ($p > 0.05$, $f = 3$, $\chi^2 = 1.802$), a worrying situation because they also focus on the pre-occupation of men with different diet regimes. In the male sex, the situation is also complicated by the increased sporting time, which increases the energy needs of the body.

Vegetable food also includes bread alongside grain derivatives. The discussion about these products has to be carefully done because the simplest action to control body weight is to remove the bread from the menus. It is a totally wrong nutritional gesture because cereals are an important source of protein, even if of plant origin. Cereals contain between 8 and 11 g of protein per 100 g of product. They reach the human body up to 40-45% of the daily protein requirement. Removing them from food, associated with reduced dairy and meat consumption, is the ideal recipe for proteocaloric malnutrition, in which the body weight reduction initially occurs but subsequently associated with serious health problems.

In the study group the situation is not serious because the bread is consumed by 4-7 times per week by 72.44% of students. I only attract the attention of 10% young people who do not consume (1.02%) or consume only once a week (8.16%) (Table V).

Table V - Bread consumption of pupils questioned

Per week	Zero	Once	2-3 times	4-7 times
Girls	1	4	10	25
Boys	0	4	8	46
Total	1	8	18	71
%	1.02	8.16	18.36	72.44

A 2-3 times (18.36%) bread intake per week can be accepted because one day a larger quantity can be consumed followed by removal from food the next day. However, statistically insignificant differences ($p > 0.05$, $f = 3$, $\chi^2 = 4.328$) are strange for females who have a great concern for controlling their own body weight.

Discussion

The first aspect to be carefully studied is that of sporting activity. Systematic studies conducted on adolescents in France highlight the diminishing interest in physical activity with age, which is much lower in girls than boys. The results of the survey conducted in 2000 in this country highlight the existence of 44.0% boys and 27.4% girls practicing daily sports alone or with friends (Guilbert, Gautier, Baudier and Trugeon, 2004). A comparative study was conducted in 2002 and 2006 insisting on practicing physical activity for at least 1 hour / day. In boys, there was an improvement in the result from 26.8% in 2002 to 41.8% in 2006. In girls, the evolution is from 12.1% in 2002 to 25.1% in 2006. French specialists are the result of educational actions taken (Godeau, Arnaud and Navarro, 2008).

Evaluations done on Mexican adolescents reveal differences in sex depending on the type of preferred sports activity. Boys prefer practicing athletics, tennis or basketball as girls turn to gymnastics and dance (Galvan, Monroy-Campos, Lopez-Rodriguez, Unzaga, Olivo, Hernandez-Cabrera, Guzman - Saladana, and Amigo, 2017)

In our country, in a survey conducted in 2014, only 15.8% of young people practicing daily sports over 60 minutes (Albu, Onose, Negrea, Crăcană and Hodorcă, 2016) are also present in the Moldovan area. Such responses appear in 32.4% boys and 9.4% girls, the calculated differences being statistically significant. In the current study, the outcome is much better reaching 30.61% of young people exercising over 60 minutes daily. However, the situation is different for sex because it reaches 46.55% boys and 7.50% girls. Boys are more interested in physical exercise than girls do. There is a need for coherent educational programs in which girls are oriented towards practicing physical exercise as a healthy way to control body weight.

The second aspect studied is the eating habits of the students surveyed. Deficient milk intake is a problem because it is a food that has a special nutritional value. Milk is present in girls only once a week in 25.0% of cases and boys in 32.75% of cases. In a

study conducted on adolescents in Bucharest, once-a-week intake is present at 10.66% girls and 8.12% boys (Milici and Neagu, 2014). The results obtained in the study group are worrying and focus on the need for coherent educational programs.

Chicken is present in menus especially 2-3 times or 4-7 times. It has a modest caloric value being recommended in slimming cure and in weight-oriented diets.

Vegetables are the favorite vegetable products for slimming belts. They provide the daily needs of minerals and vitamins, but are poor in protein and lipids. Modest protein content (1-2 g / 100 g product) and lipid (less than 1 g / 100 g product) is a problem. These products are constantly present in the menus due to their modest caloric intake (up to 50 kcal / 100 g of product). Consumption needs to be carefully studied because of the risk of proteocaloric malnutrition (Martin and Tarcea, 2015).

Bread is constantly present in the menus of the students questioned. It is a positive result because it also provides considerable protein intake. In a teenage study in Alexandria, three times a day the consumption of bread was found in 36.5% of cases twice in 40.2% of cases and once or less per day in only 23.3% of youngsters (Emara, Mehanna, Ashour, Koura and Shatat, 2018). Eating bread is what is a positive element. Many “special” nutritional programs that deliver “special” results guide young people to reduce consumption and even to remove these products from menus.

Conclusions

Young people and especially young women are less concerned about the systematic exercise of physical exercise.

They frequently resort to “special” diets that can become a risk factor for their health. The study group finds the drastic reduction in the intake of products of animal origin and the orientation towards those of vegetal origin.

It is necessary to develop nutritional education programs, but to be made correctly based on the actual knowledge of the alimen-

tary habits of the population. Programs such as fruit-delivery and school-based fruit do not educate anything as our populations get plenty of fruit and vegetables.

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