

Science, Movement and Health, Vol. XX, ISSUE 2 Supplement, 2020  
September 2020, 20 (2 Supplement): 272 - 278  
Original article

## PHYSICAL EDUCATION AND SPORTS AS A LIFE-STYLE FOR STUDENTS OF SECONDARY SCHOOL

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### Abstract

*Aim.* The study aimed to find and to improve the body mass index, the percentage of body fat and the lifestyle of the students from secondary school.

*Metode.* The methods used were: a specialized health and fitness website to calculate the body mass index and body fat percentage, a questioner to find out more about the student's life-style, and a set of fitness specific physical education exercises to improve the body mass index and body fat percentage.

*Results.* The results of final test showed a significant progress because 60% of student's body mass index and body fat percentage has improved, and the questioner final responses showed that 60% of students have a healthier life-style.

*Conclusion.* Study hypothesis confirms that physical education program had a positive effect and improved student's health and life-style.

*Keywords:* physical education, health, life-style.

### Introduction

Anyone involved in physical education, sports or physical activities is convinced of their ability to have more lives, to motivate, to guide and has the potential to bring out the best in people. Many people are able to take on the "life skills" of physical education, sports and physical activity and transfer them to other areas of life (Bompa, Haff, 2014). Indeed, it would be rare to find a successful athlete who is unable to describe how different aspects of his sport have had an impact on his knowledge, behavior, attitudes, or skills in other categories of his personal and professional life. These things also apply to young people. Physical education, sports and physical activities can be used to improve both their physical and cognitive development. The school and college are full of students whose confidence and self-esteem have gained from successful participation and involvement in any form of physical education, sports or physical activity, and who have succeeded in appropriate behavior, attitude and manner. in which they conducted various other aspects of their lives ([https://notonlyfairplay.pixel-online.org/files/toolkit/Toolkit\\_RO\\_TEA01.pdf](https://notonlyfairplay.pixel-online.org/files/toolkit/Toolkit_RO_TEA01.pdf) – „Not only fair play”, Project co-founded by Erasmus and the European Union).

Disorganized movement, on the other hand, includes physical activities that are not characterized by a particular program. The personality of young people requires a balance between this type of behavior and habits, in order to avoid the

predominance of one of them over the other (Dragnea, 2006). For example, exclusive documentation on nutrition but staying in a sedentary state does not lead to a positive state.

Another example is the importance given to ensuring children's games, as children learn through play and games, and the game itself promotes the growth and development of personality. Organized physical activity, planned by a movement expert, cannot be separated from unorganized activity because, according to an important international study on the physiology of physical movement in children, it shows that young people, to combat a sedentary lifestyle and low level of motor skills, should exercise at least an hour a day ([https://notonlyfairplay.pixel-online.org/files/toolkit/Toolkit\\_RO\\_TEA01.pdf](https://notonlyfairplay.pixel-online.org/files/toolkit/Toolkit_RO_TEA01.pdf) – „Not only fair play”).

### Motivation of theme choice

We decided to choose this topic due to the importance, role and benefits of physical education and sports both in our lives, but especially of students and children, given the reality of the environment we live in today, with multiple factors influencing the style of life in a more negative than positive way.

### Purpose of the work

The main purpose of the paper is to highlight the important aspects of physical education and sports and how to change and provide a healthier lifestyle for seventh graders at the Gymnasium School No. 24 „Ion Jalea” from Constanța.

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\*the abstract was published in the 20th I.S.C. "Perspectives in Physical Education and Sport" - Ovidius University of Constanta, May 28-29, 2020, Romania

Received 1.03.2020 / Accepted 05.05.2020

The secondary goal is to find out certain characteristics, traits and habits from the lifestyle of the 7th grade students from the Gymnasium School no. 24 „Ion Jalea” from Constanța, regarding the practice of extracurricular sports activities, the time spent in the virtual environment (internet, computer / mobile games), their food and rest, through the questionnaire.

#### The hypothesis of the work

We assume that if we do more physical activity, eat healthier and rest within the recommended time, then we will have a better lifestyle that will improve physical and mental health.

#### Lifestyle or what we do every day



The concept of way of life was launched at the beginning of the twentieth century and penetrated deeply into the sociological literature especially after the famous analysis made by Louis Wirth (1938) on the

urban way of life in contrast to the rural one. The distinction between lifestyle and lifestyle has not always been very clear and coherent, with many authors considering the two terms synonymous, others pointing out that they describe certain behavioral and attitudinal traits of social groups or individuals. In other words, the way of life refers to the way in which the life of some social groups unfolds at a given moment, what life strategies, behaviors and attitudes a social group develops at a given time, in a particular socio-economic context, and lifestyle refers to the individual choice - what lifestyle strategy, what behaviors, beliefs and attitudes an individual develops at a given time. A distinction in this sense is also made by C. Zamfir (1993), who shows that the concept of lifestyle is used in two distinct methodological perspectives:

a) An accentuated descriptive perspective - for example the way of life of some social groups at a given time.

(<http://ro.scribd.com/doc/153169343/Calitatea-Vietii-Populatiei-Republicii-Moldova-in-Perioada-de-Tranzitie-Probleme-Si-Tendinte-Sociale-PDF>)

b) An explanatory-predictive perspective, which starts from a factor supposed to be determinant, tries to determine its influence on the way of life - for example the analysis of the peasant, working way of life (<http://ro.scribd.com/doc/153169343/Calitatea-Vietii-Populatiei-Republicii-Moldova-in-Perioada-de-Tranzitie-Probleme-Si-Tendinte-Sociale-PDF>).

Is it so important to have a balanced and healthy lifestyle? If so, why? And what is that pattern of life?

We will find the answers to these questions in the following.

#### How did our grandparents live and how do we live today?



If we look only half a century ago we will see radical differences between the lifestyle of our grandparents and that of the modern man, always agitated, in a time crisis, stressed and tempted to obtain absolute comfort. Our grandparents had a more active lifestyle, were

more resilient and healthier. This lifestyle is mainly characterized by: Activitate fizică moderat – intensă, mergând frecvent pe jos;

- o Positive thinking;
  - o o They paid attention to mealtimes a real ritual, and ate in a quiet setting, focusing on it;
  - o o They consumed more natural foods, coming from more food sources and less processed, chemicalized;
  - o o They usually prepared their food at home and only for one day, maximum two;
  - o o They did not use food additives, artificial fats, artificial sweeteners and refined sugars;
  - o o The oils were unrefined, cold pressed;
  - o o They did not live in a perpetual food holiday!
- They consumed less meat and very few industrial preparations of meat, sausages, pies, and these were prepared in the household or in natural conditions, very different from the current industrial ones;
- o o They got up from the table when they were still hungry, they didn't cringe;
  - o o They did not consume refined sweets, confectionery, pastries except on occasions, holidays. Obesity was almost unknown, in fact, obesity is unknown in nature, only modern man and domestic animals suffer from obesity!
  - o o There were no fast food chains;
  - o o They did not consume soft, energizing drinks, but spring water;
  - o Nu consumau cantități excesive de băuturi alcoolice, industriale, bere, vin, lichioruri ș.a, de calitate îndoielnică;
  - o Alimentele consumate nu aveau densități calorice enorme, așa cum au cele de astăzi, o porție de mâncare la fast-food poate atinge valori calorice de 500-800 Kcal. O porție de mâncare sănătoasă, din alimente naturale, integrale are circa 150-200 Kcal.;

- Porțiile de mâncare nu erau gigantice precum cele actuale  
(<http://www.financiarul.ro/2012/05/07/stil-de-viata-cum-traiau-bunicii-nostri-si-cum-traim-noi/>);  
**What does the lifestyle of modern man look like?**



Of course, totally different from our grandparents:

- We have adopted a sedentary lifestyle, we no longer want to make any physical effort, as a result obesity in children and adults has become epidemic, making us sick with type 2 diabetes, cardiovascular disease, etc .;
  - We no longer give any importance to mealtimes and the way we eat;
  - We eat food chaotically, on the street, on the bus, watching TV, in front of the computer, we usually skip breakfast, we eat in the evening not only excessively, but also heavy foods;
  - We eat food because it is cheap, tasty or trendy-cool, even without being hungry or thirsty;
  - We are not aware that industrial foods are addictive, causing us to want and consume them as often as possible, which has the effect of adopting a monotonous and unhealthy diet;
- We consume devitalized, nutritionally unbalanced, industrialized, high-calorie foods, full of chemicals, in increasing proportions, breaking the balance between calorie ingestion and burning (these are generally pasteurized and sterilized foods, dead foods, profoundly modified their natural state);
- Every moment we have a feast; it is always a food holiday;
  - We do not have periods of voluntary food restriction, fasting for example, in addition to spiritual reasons, is also intended to provide the body with the opportunity to detoxify from certain nutrients, E's, pollutants, etc.;
  - We consume excessive industrial alcoholic beverages;
  - We replace water with other fluid foods (beer, milk, soft drinks or energy drinks, coffee), ignoring the fact that water cannot be replaced by any other food fluid, just as breast milk cannot be replaced by anything else;

- We fry in excess, in non-temperature resistant oils - thus, the foods we fry are contaminated with neurotoxic and carcinogenic substances;
- We use the microwave oven when heating or preparing food, which decreases the nutritional value and generates dangerous changes to their structure;
- We do not associate food correctly, causing an unhealthy digestion, with carcinogenic putrefaction processes;

- We consume too few fresh seasonal fruits and vegetables, too few unrefined whole foods, too few dietary fiber;
- We do not respect the individual biorhythms and the alternation of the activity periods with the rest ones (<http://www.financiarul.ro/2012/05/07/stil-de-viata-cum-traiau-bunicii-nostri-si-cum-traim-noi/>);

“Today, industrialized, refined foods contain a strong contradiction, a lie, between the two facets: the sensory one is extremely beautiful and tasty, and the nutritional one is almost non-existent! This lie is extremely dangerous, being a real misfortune for our health. Thus, unlike our ancestors, we came to eat without eating, emphasizes Prof. Dr. Gheorghe Mencinicopschi in his book "And what do we eat?" (Mencinicopschi, 2010).

"Today we are more and more assaulted and tempted by all sorts of enticing foods. In record time we have avidly aligned ourselves with the western lifestyle and diets, taking over the "advantages", but also their profoundly adverse effects on our health. Let me tell you something about the connection between appetite and neuromarketing. The two important controllers of appetite are: blood sugar and serotonin levels in the brain. Today, modern man is assailed by an overabundant food supply, represented by products invaded by additives and flavors in unnatural concentrations, with questionable nutritional value, which disrupts our choices and disrupts the physiology of digestion, inducing eating disorders not found in our ancestors. The addition of chemicals is one of the main factors that create dependencies (sweeteners, flavor and flavor enhancers, harmful natural and artificial fats, salt, dyes, preservatives, etc.), being responsible for the occurrence of addictive behaviors. These, in turn, determine the consumption of food above the physiological need, in the absence of hunger, generating overweight and obesity. In addition, neuromarketing and aggressive advertising play a key role in altering normal food choice and consumption behaviors. In this way, advertising and chemistry on the plate fools the brain, tasked with integrating all information from the digestive system such as: the presence of food in different digestive areas, distension of the stomach and intestinal walls, the composition of the food



bowl, the state of metabolic parameters. nervous and hormonal pathways ”

(<http://www.financiarul.ro/2012/04/03/prof-mencinicopschi-mancam-fara-sa-ne-hranim-publicitatea-si-chimia-din-farfurie-pacalesc-creierul/>). The psychological, basic aspects necessary for the regularization of food intake are processed and integrated in the thalamus area (limbic system), which is responsible for the sensations of pleasure (hedonic impulses). The brain subjected to sensory demands unknown to it, caused by the transformation and chemicalization of natural foods, is fooled into causing disorders that are the source of many eating disorders. These, in turn, pathologically alter the various mechanisms of physiological regulation of metabolism, resulting in the disease of "diseases of modern civilization." The ultraspecific



collectors of nutritional information of the human body can no longer generate correct information in this food context, further disrupting the cerebral commands of food intake. Are we witnessing a change in the stated purpose of the use of food additives, from that of preserving, coloring, enhancing flavor, to creating and amplifying food dependencies on certain specific products? The answer is yes! Neuromarketing creates commercials with a strong impact on the brain, stimulating emotions and fixing them to create food addiction. Let me further explain how television commercials affect our eating behavior and health,



Television advertising has a special feature: the transmitted information enters directly into memory through the unconscious, new knowledge not being perceived or logically structured, and the mind is not fully aware of them due to inhibition of the activity of the left logical hemisphere. In other words, television has the ability to send messages directly into the subconscious. Due to this way of perception, the viewer fails to truly control and become aware of the logical meaning of the messages, then reacts later, but without actually knowing what and why he is reacting! The reaction is an emotional, confusing one, generated by the artistic right hemisphere, the one that remains active when we watch TV. Thus, the reaction to food commercials is irrational, associating beautiful young people or paradisiacal places presented with food exposed in this context. We confuse the beauty, the healthy, perfect appearance of the actors in the commercials and our suggested ideals of the landscape with a nutritional quality (often non-existent) of the food presented. Here's the secret! This is why television is powerful: it has the incredible ability to shape the human subconscious! Yes, television can influence people's thinking and lifestyle without them even being aware of it. (<http://www.financiarul.ro/2012/04/03/prof-mencinicopschi-mancam-fara-sa-ne-hranim-publicitatea-si-chimia-din-farfurie-pacalesc-creierul/2/>). De aceea, ca reacție, ne trezim că din senin dorim să consumăm un aliment sau altul, căruia i s-a făcut reclamă la televizor.

*Children are even more exposed to the influence of seductive, false advertising of food, altering and crystallizing unhealthy eating habits and a disease-generating lifestyle of modern civilization.*

That is why it is good not only for you to protect yourself from these television commercials, but especially to be aware of the need to protect your children, if you care about their health. "Thus, advertising contributes to the emergence of obesity and its entire pathological picture. What to do? Simple! We must have the will and wisdom to return, at least in part, to the traditional living and eating habits of our forefathers in order to spare both our health and especially that of future generations,

who are becoming more and more sensitive. I grieve that my generation is the generation of those whose children are sicker than their parents! And not only that! Unfortunately, the children began to die before their parents! According to some recent data, on average over 300,000 Romanians frequent fast-food restaurants daily, sales still having a strong positive trend. The preferences of all fast food consumers are directed towards highly processed, refined, additive, hypercalorogenic, nutritionally unbalanced foods (hamburgers with french fries, Coca-Cola drinks, sandwiches with mayonnaise sauces, etc.). The culmination is that parents bring their children to such restaurants more and more often and choose the menus for them or organize parties for them. Parents are irresponsible in this case and not ignorant, because today everyone knows how dangerous fast food is! They ignore the danger to the health of their

children, who will thus adopt a lifestyle that will invariably transport them, sooner or later, to the area of serious illness. In fact, childhood obesity, in addition to adult obesity, has become a public health problem for Romania as well. In order to counteract this trend, acts were elaborated that regulate the sale of some foods not recommended to children in schools (law 123/2008, ord. 1563/2008). But the law without the educational support of parents and the school cannot have the expected effects. Leaving our traditions and adopting a new foreign lifestyle, we have lost a part of our identity, of the culture and faith that gave this nation the power to resist. (<http://www.financiarul.ro/2012/05/07/stil-de-viata-cum-traiau-bunicii-nostri-si-cum-traim-noi/>”).

### Initial test results body mass index and body fat in percentages

**Table 1. BMI values**

BMI values	NUMBER OF STUDENTS
Underweight, high risk: BMI <18.5	4 students
Weak, low, risk: BMI = 18.5-22	4 students
Normal range: BMI = 20-24.9	5 students
Overweight, high risk: BMI = 25-30	6 students
Obesity, high risk: BMI > 30	1 student

**Table 2. Values the percentage of body fat**

Values the percentage of body fat	Boys
Increased risk - Under 5%	2 students
Weak, low risk: 5-15%	4 students
Normal values - upper limit: Less than 20%	2 students
Moderately overweight, moderate risk: 20-24%	4 students
Excessively overweight, increased risk: 25% or more than	1 student

**Table 3. Values the percentage of body fat**

Values the percentage of body fat	Girls
Increased risk - Less than 10%	1 student
Weak, low risk: 10-23%	3 students
Normal values - upper limit: Under 26%	2 students
Moderately overweight, moderate risk: 26-31%	1 student
Overweight, increased risk: 32% or more	-

### Final test results body mass index and body fat in percentages

**Table 1. BMI values**

BMI values	Number of students
Underweight, high risk: BMI <18.5	1 students
Weak, low risk: BMI = 18.5-22	3 students
<b>Normal range: BMI = 20-24.9</b>	<b>13 students</b>
Overweight, high risk: BMI = 25-30	3 students
Obesity, high risk: BMI > 30	-

**Table 2. Values the percentage of body fat**

Values the percentage of body fat	Girls
Increased risk - Under	
Weak, low risk: 10-23%	2 students
<b>Normal values - upper limit: Under 26%</b>	<b>4 students</b>
Moderately overweight, moderate risk: 26-31%	1 student
Overweight, increased risk: 32% or more	-

**Table 3. Values the percentage of body fat**

Values the percentage of body fat	Băieți
Increased risk - Under 5%	1 students
Weak, low risk: 5-15%	3 students
<b>Normal values - upper limit: Under 20%</b>	<b>7 students</b>
Moderately overweight, moderate risk: 20-24%	2 students
Excessively overweight, increased risk: 25% or more	-

#### **Results of the questionnaire**

Following the application of the information sheet on the role of physical education and extracurricular sports and how they influence the general health, we note that:

- 3 out of 20 students spend their free time doing sports compared to the initial test when only 1 student out of 20 answered that they do so.

- 9 out of 20 students said they would choose a healthier but less tasty food than the initial test when 7 out of 20 students said so.

#### **Bmi results and fat percentage**

Following the exercise program between the initial and final testing, the following changes were found:

- 13 out of 20 students managed to improve their body mass index within the normal range of values.

- 7 out of 13 boys improved their body fat percentage, being in the category of normal values.

- 4 girls out of 7 managed to improve their body fat percentage, being in the category of normal values.

#### **Conclusions on the results of the questionnaire, the body mass index and the percentage of body fat**

"Physical education, physical activities and sports have a positive impact on the degree of connection that young people feel with school; their aspirations; the degree of positive social behavior within the school; and the development of civic skills and leaders". (Stead & Neville 2010)

"More physically active children have improved neurological function, have a higher academic degree and are capable of superior cognitive performance than less physically active children." (Chaddock, <https://vdocuments.net/cum-sa-integram-sportul-si-abordarile-pentru-un-still-de-sa-integram-sportul.html> )

The results of the final tests of body mass index and fat percentage show significant progress, while those of the student lifestyle questionnaire did not rise to the same level. Given the difference between achieving better fitness and completely or largely changing a person's lifestyle, I believe that the effort to show students how small the distance is between being physically healthy or being at a step

to develop a serious health problem, it was worth. Knowing the degree of dependence caused by today's technological devices (smartphone, laptop, computer, etc.), a person will change his lifestyle only if he reaches a limit where the situation will force him. Even so, owning one is still beyond the reach of the average person.

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