

# Muscles and physical activity; the importance of physical activity in the burning process of food calories; the culture of physical activity among students of middle school

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## **Abstract**

# Background:

The aim of this work is to demonstrate the importance of physical activity for human health. The aim of the work is to sensitize pupils of this age to the importance of physical activity. The most important factor for the realization of physical activity is the muscles.

### Methods:

Precisely for this reason, we tried to explain to young people of this age that physical activity is primary. We also showed what role the muscles play in the execution of movement. We were talking about the skeletal muscles, which are the only voluntary muscles of the body.

# Results:

Physical activity is not only of great importance for the body's muscle tone, but also affects all other systems of the body, especially the nervous system, respiration, blood circulation, nervous system, etc.

# Conclusions:

The introduction of a culture of physical activity has a great and direct impact on health. The purpose of this paper is to influence the adoption of a culture of physical activity as a major factor in good health, even if only to a small extent.

**Keywords:** muscles activity; physical activity; burning process; food calories; students of middle school

# Introduction

You must eat to live and not live to eat." Nutrition is very important, both for healthy and sick people. In the century in which we live, nutrition has become extremely important. It constitutes the basic discipline of health care. Not only that, treatment through appropriate nutrition (medical nutritional therapy), improves the quality of life and saves health care costs. It is now known that the diseases of the century such as obesity, diabetes, heart diseases, etc., constitute a serious threat. An important factor in good health is eating the right things in the right amount as shown in Figure 1. <sup>1</sup> To explain this you can compare the body to a car that won't start unless enough fuel has been injected. In the same way, the body does not function if it has not received the sufficient amount of nutrients.

It means that one needs to get nutrients to function regularly. We get these from the food we eat. When food passes through the digestive system it is digested, then the body uses the nutrients that are in the food.  $^2$ 

Digestion begins with the tearing of food in the mouth by the teeth, then it passes to the stomach. After the food has stayed in the stomach for some time, it passes to the intestines where the nutrients are absorbed. From here, the nutrients pass into the blood and are transported by the blood to where the body needs them. <sup>3</sup>



Figure 1. A graphical representation of some types of fruit and vegetables to illustrate a healthy diet

Therefore it is important to live and eat healthy and not be overweight. If you are not sick, it does not mean that you are healthy. Health is more than the absence of disease.

The objective of this paper is to elaborate the knowledge about food in general as well as the factors that influence the appearance of diseases from malnutrition and lack of physical activity in teenagers. 4

# The purposes of this study are:

To influence, however little, the introduction of a culture of physical activity as the main factor for good health, as shown in Figures 2 & 3.5

Sensitizing young people to the need to follow a balanced quantitative and qualitative diet, combined with regular physical activity, which create the conditions for well-being and a healthy life. <sup>6</sup>

In Albania, there is a shortage in this direction and not enough has been done to create such a culture. 7



Figure 2. Some young people who are physically active in nature



Figure 3. Some young people who are physically active in nature

# The objectives of this study are:

- Sensitization of parents and teachers to encourage students of this age to do physical activity.
- To show the importance of physical activity for health.
- To find out how informed students of this age are about the importance of physical activity.
- To show how much they are involved in physical activities apart from the hours held at school.

# The impact of physical activity:

- Lower level of mortality
- Lower risk of cardiovascular diseases
- Better management of arterial hypertension
- Better Management of type 2 diabetes
- · Lower risk of cancerous diseases is reduced
- Lower risk of Osteoporosis
- Better Weight management, its reduction.

Management and prevention of nervous diseases

To see the influence that parents have in encouraging their children to perform physical activities as shown in Figure 4.



Figure 4. Graphic illustration of physical activity and especially sports, as a necessity for a healthy life

# The questionnaire

All of the experiments described here were conducted with permission from the Institutional Ethics Committee at University of Shkoder. Physical activity and its importance (lower secondary education, 9 years) Clarification for

completing the questionnaire: Hello! You have been selected to give your opinion by completing this questionnaire. The purpose of the questionnaire is to collect your individual opinions regarding the following questions. Answer by circling or placing an x in the following statements. We assure you that your answers are confidential. The questionnaire is developed in order to collect opinions about the importance of physical activity as shown in Figures 5 & 6.

- 1. Are you a student of the class? a) sixth grade b) seventh grade c) eighth grade d) ninth grade
- 2. Your gender is a) Female b) Male
- 3. Do you know the importance of physical activity? a) Yes b) No c) not completely
- 4. How many times a week do you carry out physical activity (apart from that carried out at school)? a) once a week
- b) twice a week c) three times a week d) more e) never 5
- 5. Which sport do you like the most? a) Football b) Basketball c) Volleyball d) Tennis e) Neither of these
- 6. Do you attend private courses in the field of sports? a) yes b) no

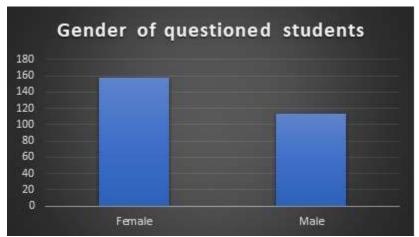


Figure 5. The bar chart represents the gender of the questioned students

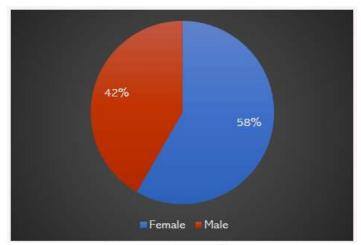


Figure 6. The pie chart represents the same data as Figure 5, but in a pie chart representation

# **Analysis of the results of the questionnaire (Figures 7-14)**

- 1. The total number of students questioned is 271; of which 87 students are in the sixth grade, 66 are in the seventh grade; 58 are in eighth grade and 60 are in ninth grade.58% are women and 42% are men.
- 2. 27% of students do physical activity 2 times a week (besides that done at school), 23% do it 1 time a week, 22% do it 3 times a week, 15% do it more than that and 13% don't do it.
- 3. 80% of them are informed about the importance of physical activity.
- 4. 66% do not conduct private courses in the field of sports.
- 5. 37% have volleyball as their favorite sport, 28% have football, 21% have basketball, 9% have tennis.
- 6. 68% of students consume vegetable-based foods, 25% dough-based and meat-based foods, 7% fast-food.
- 7. 52% prefer to spend a free hour playing with friends, 32% prefer a walk in the fresh air, 13% an hour surfing the Internet and 3% an hour reading a book.
- 8. In 49% of students, parents have little influence to encourage them to do the activity. In 39% of students, they influence a lot and 12% not at all.

9. 77% think that physical activity serves to keep the body in shape, 17% to have fun and 6% to spend time with society.66% think that there are not enough centers for physical activity.

10. 66% think that there are not enough centers for physical activity.

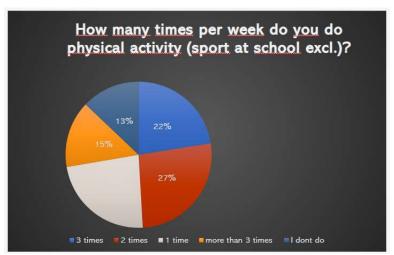
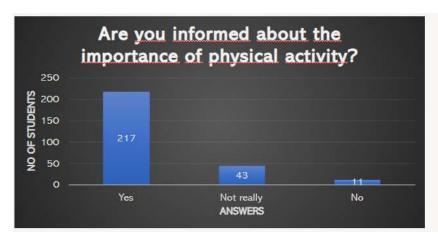
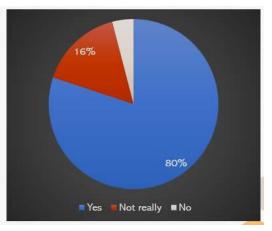
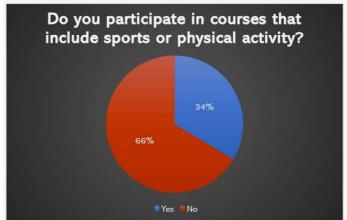


Figure 7. The pie chart represents the amount of time students do physical activity.

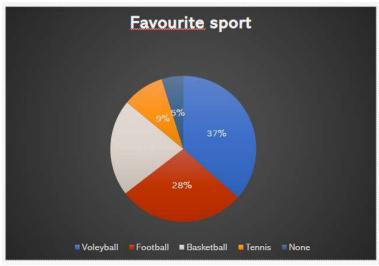




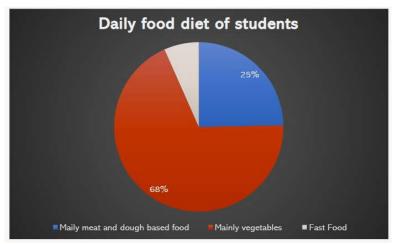
**Figure 8.** The graph represents how much informed are the students about the importance of physical activity (left). The pie chart represents the same collected data as the other graph (look left), but as mentioned in a pie chart and displayed as percentages.(right)



**Figure 9.** The pie chart represents the number of students, who attend sport courses.



**Figure 10.** Pie chart shows the students' favourite sport.



**Figure 11.** The pie chart shows the students' preferred way to spend the free time.



Figure 12. The graph shows the influence of students' parents in encouraging them in doing physical activity.

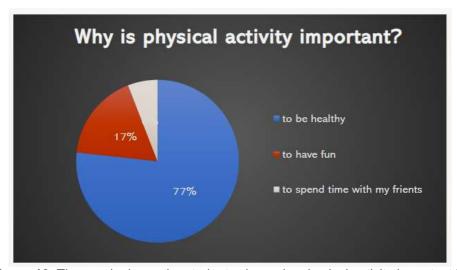
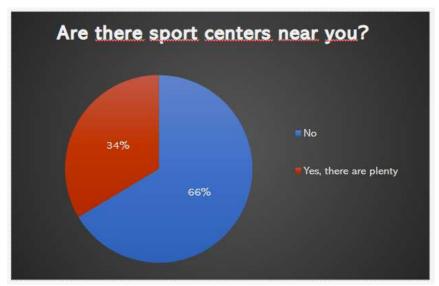


Figure 13. The graph shows the students view, why physical activity important is.



**Figure 14.** The graph aims to show if near students' houses are sport centers.

# **Conclusions**

At the end of this study with students of lower secondary education, it turns out that:

Most of the students are informed about the importance of physical activity for health, since most of them also develop physical activity 2 times a week.

There are not enough centers and facilities for this age group (12-15 years old) where they can go out and develop physical activity.

They prefer to spend time playing with friends rather than surfing the Internet or reading a book.

The food diet of students of this age is based on healthy foods.

Most of them develop physical activity to keep their body in shape.

The influence of parents in encouraging their children to play sports or perform physical activity is low.

# Recommendations

Students saw physical activity as a way to keep the body in shape. This happens due to the very fact that the age of adolescence also begins, where students pay a lot of attention to their appearance. But it would be better if they looked at it from the side of the health benefits that physical activity brings as they would be taught from this early age and it would be returned to their culture

The school can play a very important role here by informing them and of course the parents. Parents should be aware of the effects of physical activity on their children and encourage them to play sports.

To See physical activity as an opportunity and not an obstacle. Be active every day, in different ways, as much as you can.

Also, due to the lack of centers, a call is made to the competent bodies and the municipality to establish as many centers and areas/parks where children of this age can develop physical activity. Because if we educate children

from this age with this culture, then they will become aware and better understand the importance of physical activity for human health.

School cooperation with parents and gyms and sports centers where students can do physical activity Introducing the culture of physical activity to students of this age.

Physical activity at school is not enough

Parents and teachers should work hard in this because movement is life and health.

### References

- 1. Shils; Katherine L. Tucker; Benjamin Caballero; Robert J. Cousins; A. Catharine Ross; Thomas R. Ziegler, Modern Nutrition in Health and Disease, 2014.
- 2. L. Kathleen Mahan; Janice L. Raymond, Krause's Food and the Nutrition Care Process, 2017.
- 3. Carolyn D. Berdanier, CRC Desk Reference for Nutrition, 2011.
- 5. Geriatric Nursing, Preventing diseases with vitamins, 1994.
- 6. Ariana Lacej, Health education, 2021.
- 7. W.R.Ron Pickerin, Biologjia 10-11, 2017.