

ANALYSIS OF THE IMPACT OF EATING HABITS AND LIFESTYLE ON ANTHROPOMETRIC PARAMETERS IN HIGH SCHOOL STUDENTS

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Abstract

There are growing trends of obesity, which additionally affect and initiate accompanying diseases among the young population. In that direction, it is especially important to assess the daily habits but also the way of life that includes physical fitness among young people. It is of particular importance to follow the WHO recommendations, in order to prevent future challenges.

In the framework of this paper, a parallel research is done on thinner and more obese children, high school students, in order to see the level of movement of parameters that can help to set up more reliable analyzes in a future time. In addition, the analysis refers not only to age but also to gender. The main research framework was realized within the framework of a secondary educational institution, with a selected target group of respondents.

The aim of the paper and the conducted empirical research is to find a connection between BMI factors and eating habits, as well as overall lifestyle.

Within this scientific paper, quantitative analysis is implemented. In addition, based on the use of an instrument - a survey questionnaire, the measurability of attitudes was carried out on a Likert scale. Furthermore, the following data were analyzed using method of descriptive analysis.

The main results are showing that there are growing trends of obesity among young population with accompanying diseases. Following a strategical approach with education, trainings and regular observation must be implemented, coordinated and evaluated, in order with the WHO recommendations.

Keywords: habits, diet, high school students, anthropometric, parameters

1. Introduction

The growing line of obesity and related diseases correlated with obesity, with special reference to young people, poses new global challenges, which primarily relate to changing life habits and practices, especially the way of consuming food. More specifically, it is daily habits that give the full picture in terms of the impact of obesity on lifestyle. The same affects the energy devoted to physical activity. In fact, there is a range of research that targets young people, regarding the level of fruit and vegetable consumption, the amount of water they drink during the day, the size of their portions as well as the assessment of their nutritional value. More specifically, it is of particular importance to see if the food consumed is rich in carbohydrates and proteins, as well as how regularly the meals are eaten. In addition, it is important to analyze and interpret the level of technological influence, that is, how much time young people spend in

front of the screen, in order to take away their attention from sports and other physical activity, as well as a regular and proportionate diet.

Bibliography overview

One aspect of the analysis of the situation is the insight that there is an increase in the consumption of high-energy foods and drinks, but also a lifestyle that initiates physical inactivity. On a long-term basis, in addition to obesity, all this is the cause of the appearance of other chronic diseases.

According to the World Obesity Federation (2020), it is predicted that by 2030, the number of obese children aged 5–19 years will increase from 158 million in 2020 to 254 million. The European initiative to monitor childhood obesity has been starting since 2006, whereby the collection of this data is particularly important for setting long-term future projections but also for taking over key strategic documentation.

Obesity among young people is a process that causes not only physical disorders but also psychological and social processes in the person. It is a social challenge that requires a common, unified solution, yet adapted to the social mental process of understanding the situation.

In addition to the above, early interventions are highlighted as a particularly important and key change in the way of life, and the family has a big role as a key unit in the acquisition of habits among children.

BMI patterns dictate the need for a regular diet, not skipping breakfast or overeating, which is reflected in the total level of fat in the body, and during calculations, the circumference around the waist and height are particularly affected (Recasens, Xicola-Coromina, Manresa, Ullmo, Jensen, Franco, Suarez, Nadal, Vila & Recasens, 2019).

In the context of the above, in order to maintain an optimal level, it is important for children to eat healthily, increase body weight in a healthy way, balance calorie intake, especially by preferring healthy food, as well as adequate expenditure of energy through physical activity.

If the indicators of children's health are made concrete, in that way the risk of obesity and other diseases associated with obesity is reduced. In that direction, it is important to think about a strategic approach for obesity prevention.

In order to set a complete overview of the situation, to take into account and cover all the necessary categories, it is important to take into account the following (Vieira-Ribeiro, Andreoli, Fonseca, Hermsdorff, Pereira, Ribeiro, Priore & Franceschini, 2019):

- 1) What is the discipline of young people in terms of healthy eating habits
 - From the aspect of regular consumption of breakfast; number of daily meals; consumption of food and vegetables; snacks; drinks.
 - What is the culture of young people when consuming a meal, is it eaten in front of a screen or is a separate, individual time allocated for eating, at the breakfast table.
- 2) Highlighting the size of the meal portion, and then the caloric value

- This is of particular importance in order to control and take into account the daily intake of energy, as one of the main factors that cause an increase in excess weight.
- 3) How much time is allocated for physical activity
 - Does it work for general physical activity and maintaining fitness or does it have a specific form that includes a sequence of exercise or some kind of sport.
 - Does the physical activity take place in school or outside of school.
 - 4) To what extent are the recommendations from the World Health Organization regarding healthy eating and maintaining physical fitness and fitness, as opposed to encouraging obesity, with our chosen lifestyle respected and publicly presented in the form of various forms, trainings, advice or practical exercises? style.
 - 5) To what extent does the family as an individual have a direct influence on young people for encouraging a healthy diet and practicing regular physical activity.

2. Methodology

Within this empirical research, a quantitative research framework is applied in order to obtain quantitative data. The research was conducted on a target group of respondents, high school students, aged 15-17 years, from one high school "X", with a total number of 100 respondents. The research framework was achieved through the implementation of a survey questionnaire, with statements set on a Likert scale, in order to see the gradation of the respondent's attitude, from less agree to fully agree. Furthermore, the obtained data, which are statistically processed and graphically presented, are interpreted based on the application of a descriptive analysis method. The research was conducted in the time period 04.15.2023-04.30.2023.

3. Results and discussion

The purpose of the research is to see how young people are exposed to unhealthy eating habits, from the size of the portions they consume to their nutritional and energy value. In addition, it is of particular importance to detect the level of physical activity. Regarding the way of eating, one of the essential conclusions and recommendations of this paper is that it is necessary to encourage food with nutritional value among young people, because it is the biggest cause not only of obesity but also of other chronic diseases, which are associated with an unhealthy diet.

In addition, it is important to emphasize the undoubtedly important role of breakfast, as a regular habit. Moreover, despite the habit of regular breakfast, which tends to decrease in parallel with the increase in the age of children, it is important to promote as many policies as possible to highlight the importance of breakfast. In fact, the main indications are that irregular breakfast leads to increased body weight. All this is dictated by the fast lifestyle, which is one of the main reasons for generations with extra pounds.

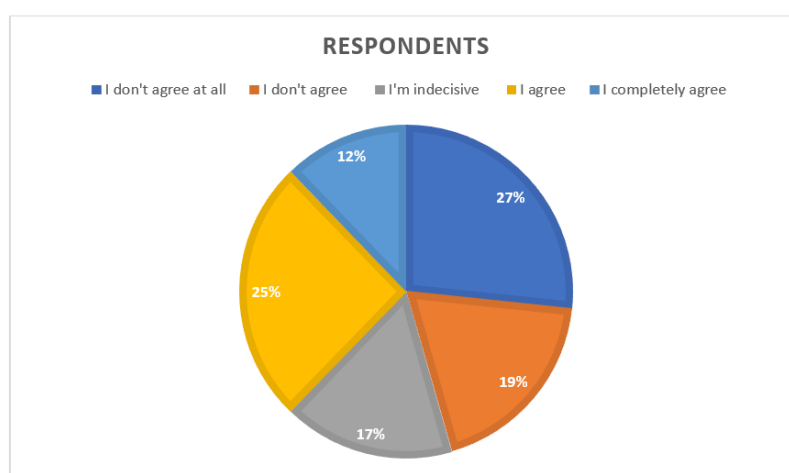
The basic hypothesis of the paper is the following: "If within the framework of the school there is a continuum of encouraging students to a healthy lifestyle, through regular healthy meals, with nutritional value, as well as appropriate structured physical activity, both at school and at home conditions, in that case a decrease in the percentage of obesity and unhealthy lifestyle is expected".

The hypothesis of the paper is analyzed and interpreted through the following survey questions/assertions:

- "Daily, I eat breakfast regularly", question no. 3
- "I am aware of the need to eat fruits and vegetables", question no. 5
- "I practice regular physical activity even outside of school", question no. 8

The analysis and interpretation of question no. 3, is presented in the following survey questionnaire:

Chart 1: Daily, I regularly consume breakfast

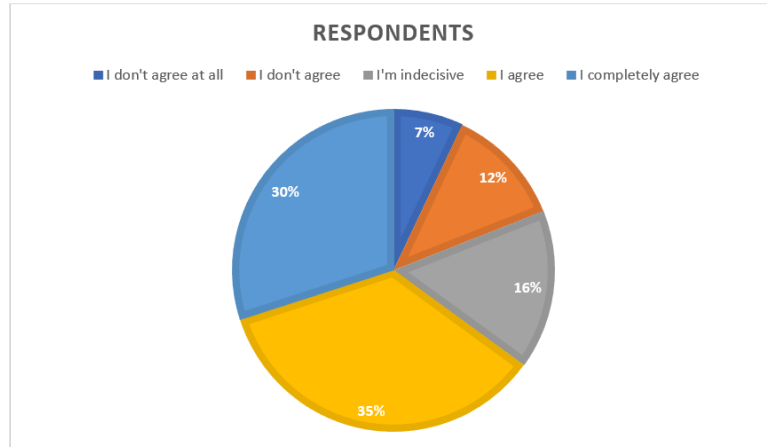


Source: Complete research by the author

According to the stated results, it can be seen that the target group of respondents, high school students, is divided in terms of the regular consumption of breakfast. According to the obtained data, 37% of respondents consume breakfast (categories: "fully agree" and "agree"), 17% of respondents are undecided in their attitude and 46% of respondents do not agree with the statement (categories: "I don't agree at all" and "I don't agree"). Therefore, breakfast, which is especially important among young people, is not practiced regularly within this group of respondents, that is, only 37% of respondents eat breakfast regularly. Breakfast is of particular importance, as shown in the theoretical part of this paper, in terms of setting the order of nutrition and prevention of excess weight in teenage and further adolescent age.

The analysis and interpretation of question no. 5, is presented in the following survey questionnaire:

Chart 2: I am aware of the need for fruit and vegetable intake

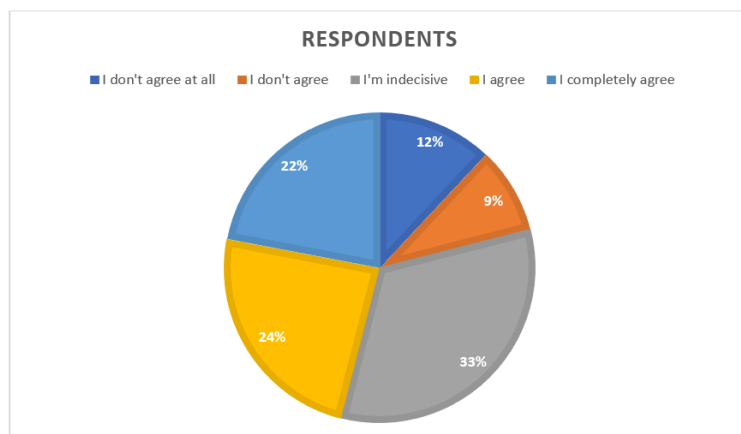


Source: Complete research by the author

According to the obtained results, the following conclusion of the processed data can be seen: 19% of the respondents do not agree with the claim (categories: "I do not agree at all" and "I do not agree"), 16% of the respondents are undecided in their attitude and 65% of respondents agree with the statement (categories: "agree" and "fully agree"). Consequently, the percentage of ascertaining the level of awareness of fruit and vegetable consumption among the respondents is 65%. That percentage, as indicated, gives a public statement among respondents regarding the need to consume fruits and vegetables, but does not give a clear insight into how regularly they do it in their everyday life (it is assumed that the percentage correlates with the real situation).

The analysis and interpretation of question no. 8, is presented in the following survey questionnaire:

Chart 3: I practice regular physical activity outside of school



Source: Complete research by the author

According to the obtained results, the following distribution of answers was ascertained: 21% of the respondents do not agree with the statement (categories: "I do not agree at all" and "I do not agree"), 33% are undecided in their attitude and 46% of the respondents are agree with the statement (categories: "agree" and "fully agree"). Consequently, there is a certain percentage of perception of the importance of physical activity, both during school and in extracurricular activities (46%). However, there is also a certain percentage of respondents who are undecided, that is, they may have ambiguities regarding how to perceive physical activity outside of school (33%). It is seen that adequate education of the students is needed in terms of how to approach being more physically active in other daily activities.

As an overall conclusion in relation to the attached data and discussion, shown in Graph 1, 2, and 3, the basic hypothesis of this paper is approached for analysis and interpretation, which has been confirmed, i.e.: *"If a continuity of encouragement is established within the school of students to a healthy lifestyle, through regular healthy meals, with nutritious, nutritional value, as well as appropriate structured physical activity, both at school and at home, in which case a reduction in the percentage of obesity and unhealthy lifestyle is expected."* The school is a place where students need to acquire the right values for the way of eating and physical activity, and then to extend the same values in later age, with the aim of selecting food with nutritional value and reducing the possibilities of obesity, as well as the rest chronic diseases that accompany obesity.

4. Conclusions

The research concludes that young people, the target group of respondents, avoid eating fresh fruits and vegetables daily. However, they consume it, which means it is not completely eliminated from their diet. Low fruit and vegetable intake is associated with an increased risk of obesity. Moreover, according to Wall and collaborators, a small inverse association between BMI and fruit and vegetable consumption has been reported (Wall, Stewart, Hancox, Murphy, Braithwaite, Beasley, Mitchell, Gómez, Weyler & Pinto-Vargas, 2018).

In the context of the consumption of fruits and vegetables, it is necessary to take into account the cost of fruits and vegetables, in the context of the available family budget. In addition, it also takes into account what snacks students consume, which also further influences weight gain. As part of the research, values were obtained that initiate how students eat, in terms of regularity of breakfast, consumption of fruits and vegetables as well as practicing physical activity outside of school activities.

All this is of particular importance, because in this way the aim is to initiate a certain model of parenting, which should take into account these guidelines regarding a healthy diet and physical activity, in order to avoid obesity in children, which further creates serious health problems. In addition, the aim is to influence public policies regarding school food, physical activities and encouraging a healthy lifestyle that young people will continue to follow in their old age.

5. Recommendation

Consequently, the recommendation is three meals a day and one to three healthy snacks with energy value. In addition, it is important to pay attention to the balance of the meals, within the intake of nutrients, which is important for proper growth and development. According to the recommendations of the World Health Organization, it is necessary to consume more than 400 grams of fruits and vegetables per day, distributed in about five portions, and at the same time, as part of a healthy diet with little fat, sugar and salt. In this way, it is initiated to reduce on the risk of obesity (Hartley, Igbinedion, Holmes, Flowers, Thorogood, Clarke, Stranges, Hooper & Rees, 2013).

Following, the overall situation needs to be considered from the aspect of food culture, in terms of family and school meals, but also physical activity and motivation for it. In addition, it is important to encourage a certain "framing" of technological challenges and occupation of high school students' time with mobile devices, computers and television. The same, more initiate the use of an unhealthy way of eating, from the consumption of snacks, to more abundant meals, without portion control, and this should be reduced and eradicated for future generations.

Limitations of the study

The research study that is implemented in this paper, it is necessary to expand is in the context of setting a real insight into the consumption of sugar among young people, sweetened drinks, the time spent watching television and so on. In addition, in the future it is necessary to distinguish between male and female gender, in order to obtain more reliable results.

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