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## Learning habits about a healthy lifestyle and the way girls eat during adolescence

The subject of the article is the lifestyle and ways of feeding girls during adolescence. The main goal of the article was to determine the knowledge about healthy lifestyle and diets among girls during adolescence. During the test procedure, an attempt was made to answer the following specific questions:

1. What is the knowledge of the studied girls about a healthy lifestyle?
2. What kind of lifestyle are the girls studied doing?
3. What are the diets of the girls surveyed?
4. How do the girls surveyed assess their lifestyles and ways of eating?

Key words: healthy lifestyle, knowledge of a healthy lifestyle, diet, girls, eating disorders, adolescence, adolescence

### **Admission**

The subject of the publication is the analysis of the issue concerning the lifestyle and the way of feeding girls during adolescence. The aim is to establish knowledge about a healthy lifestyle and ways of eating among girls during adolescence.

At the beginning it should be mentioned that during the adolescence period, there are many changes in girls, both physically and mentally and emotionally. These changes often determine their views on the world, on life and, consequently, affect the choice of a healthy or unhealthy lifestyle, as well as making

choices about healthy or unhealthy eating. Unfortunately, fairly frequent occurrences in this age group are alcohol consumption, irregular sleep, smoking or improper eating. When talking about improper nutrition, it should be noted that it is not only about eating too much sweets, salt, fats or so-called. fast-food, but also serious eating disorders, such as anorexia or bulimia, which may have far-reaching health consequences. Therefore, it seemed interesting to diagnose life styles and ways of eating at a selected group of high school students during adolescence, which is treated in this article.

### **Methodology of research**

The diagnostic survey method was chosen as the method most useful for research purposes in this article.

The purpose of the research was to prepare a research tool in the form of a questionnaire for girls during adolescence. The research tool contains, in total, 18 main questions, a few questions for each of the four main research areas, i.e. determining the knowledge of healthy girls about the healthy lifestyle, determining whether the examined girls lead a healthy lifestyle, determining the nutrition of the examined girls, as well as determining the assessment of their lifestyles and ways of eating by the examined girls. The questionnaire is author's. The reason for choosing this technique was economic reasons, since the survey allows you to test in relatively short time of a large number of people. What is important, the survey gave a sense of anonymity, which greatly contributed to providing honest answers.

The methodology used to write this publication was to conduct a critical analysis of literature, legal acts and other documents, including available Internet resources.

### **Health education - role and tasks**

The school implements the objectives and tasks set out in the Act on the education system of September 7, 1991 on the

education system and regulations issued on its basis<sup>1</sup>. In particular, it provides students with full mental, moral, emotional and physical development in accordance with their needs and psycho-physical abilities, in conditions of respect for their personal dignity and freedom of outlook and religion. In accomplishing this task, the school respects the principles of pedagogical sciences, legal regulations as well as obligations resulting from the Universal Declaration of Human Rights of the United Nations, the Declaration of the Rights of the Child of the United Nations and the Convention on the Rights of the Child.

One of the most important tasks of the modern school, apart from education, is to shape health-related behaviors of students. Health education is a very important didactic and educational process in which students learn how to live, to maintain and properly improve their own health as well as other people and create a healthy environment, and in case of illness or disability actively participate in its entire treatment, reducing its negative effects<sup>2</sup>.

The definition of health and attempts to define this concept have such a long history as the man himself. Health according to the World Health Organization (WHO) is a state characterized by achieving well-being at the physical, mental and social level. Therefore, it is not related only to the lack of disease or illness. Health in the general and general sense is the opposite of the disease. According to Hippocrates, both health (well-being) and illness (bad mood) depend on the balance between what surrounds us (balance between man and the environment). Health also means the potential of adaptation of an organism to the requirements of the environment, to perform social roles, to adapt to changes occurring in the environment and the ability to deal with these changes. In addition, it is a means of enabling a better quality of life and a resource that guarantees society's development<sup>3</sup>.

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<sup>1</sup> Act of 7 September 1991 *on the system of education* (Journal of Laws 1991 No. 95 item 425, as amended).

<sup>2</sup> *Health education*, Ministry of National Education, Warsaw 2013, pp. 3-4.

<sup>3</sup> Definition of health, <http://www.izp.wroclaw.pl/>, [accessed: 13/06/2018].

Health is an inherent condition of all school achievements, as well as good quality of life as well as economic productivity. By equipping young people in knowledge, skills and appropriate attitudes towards health, you can also increase their chances for a healthy life and all their ability to act precisely for the health of the community where they live<sup>4</sup>.

The aim of children's and youth's health education is to provide them with adequate assistance in:

- understanding what health is and what determines why and how it should be not take care of properly,
- getting to know each other, tracking the course of one's own development, identifying and solving various health problems,
- strengthening self-esteem and faith in your abilities,
- developing a sense of responsibility for one's own health and other people,
- preparing for participation in health activities and creating a healthy environment at home, workplace, school, local community (health education is an important element of civic education),
- developing personal and social skills conducive to well-being and positive adaptation to tasks as well as everyday life challenges<sup>5</sup>.

According to Barbara Woynarowska (pediatrician, school medicine specialist, professor at the Department of Biomedical Fundamental Development and Sexology, Faculty of Pedagogy of the University of Warsaw [...]), the whole school environment has a significant impact on the effectiveness of health education, because it depends on whether there is also a coherence between what all pupils learn in all lessons and what they see around them and what they can do at school<sup>6</sup>.

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<sup>4</sup> B. Woynarowska, *Relations between health and education*, [in:] *Health and school*, edited by B. Woynarowska, Medical Publishing House, Warsaw 2000, p. 15.

<sup>5</sup> Tamże.

<sup>6</sup> B. Woynarowska, A. Kowalewska, Z. Izdebski, K. Komosińska, *Biomedical foundations of education and upbringing*, PWN Scientific Publisher, Warsaw 2010, p. 337.

### Healthy lifestyle - factors and conditions

On the basis of all health research for a breakthrough document drawing attention to the importance of a proper lifestyle for health, the most important issue is published in 1974 entitled "A New Perspective on the Health of Canadians". Exactly that four so-called health fields, or spheres determining the health of individuals, among which, along with biology, the environment and the health care system, there is also a lifestyle. In addition, M. Lalond's report defined lifestyle as a general set of decisions made by people that affect their entire health, over which individuals have more or less control. Personal decisions, as well as habits that are bad in themselves, from the health perspective, create self-imposed risks. When these risks result in disease or death, the individual's lifestyle can be defined as contributing to or even causing illness or death<sup>7</sup>.

The definition of lifestyle developed by the World Health Organization at the end of the 20th century gives much better insight into the factors that affect the overall healthy lifestyle. According to this definition, lifestyle is a way of life based mainly on identifiable patterns of behavior, which are determined by the mutual influence between the personal characteristics of the individual, as well as social interactions, as well as socio-economic and all environmental living conditions<sup>8</sup>.

All unhealthy nutritional factors combine with general mortality due to various cardiovascular diseases (in particular heart disease and stroke) and cancer, as well as diseases that are the main death factors among Western countries, including Poland. The diet primarily affects four basic factors regarding the risk of cardiovascular disease, namely: hypertension, obesity, diabetes,

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<sup>7</sup> M. Lalonde, *A New Perspective on the Health of Canadians*, Health and Welfare Canada, Ottawa 1974, p. 32.

<sup>8</sup> WHO, *The world health report 1998-Life in the 21st century: a vision for all*, World Health Organization, Geneva 1998.

as well as cholesterol. Obesity, as well as high blood pressure and a general diet high in saturated fats, as well as trans fatty acids and cholesterol, increase the risk of stroke and coronary heart disease. At this point, it should be noted that a diet low in saturated fat, but rich in fiber, reduces the overall risk of heart disease<sup>9</sup>.

Research shows that men and women who are physically active have an average, much lower mortality rate than inactive people<sup>10</sup>. Sitting lifestyle is from 23% of all deaths due to very serious chronic diseases.<sup>11</sup> In addition, people with much greater physical activity have a much lower risk of ischemic heart disease,<sup>12</sup> or a reduced incidence of coronary events.<sup>13</sup> Only a quick walk lasting 3 hours or more a week reduces the overall risk of coronary heart disease by as much as 30-40%, and also increasing the time or intensity of this physical activity even contributes to an even greater reduction of this risk. Several clinical studies show that moderate physical activity may produce similar or even greater effects in lowering blood pressure than intense activity<sup>14</sup>.

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<sup>9</sup> B. Frank Hu, J. Meir, J. Stampfer, E. JoAnn, Manson, E. Rimm, A. Graham, Colditz, BA Rosner, CH Hennekens, C. Walter, Willett, *Dietary Fat Intake and the Risk of Coronary Heart Disease in Women*, New England Journal of Medicine, e.g., 337/1997, pp. 1491-1499.

<sup>10</sup> R. Hahn, S. Teutsch, R. Rothenberg, J. Marks, *Excess deaths from all diseases in the United States*, Journal of the American Medical Association, no. 264/1986, pp. 2654-2659.

<sup>11</sup> Tamže.

<sup>12</sup> L. Kushi, R. Fee, A. Folsom, P. Mink, K. Anderson, T. Sellers, *Physical activity and mortality in postmenopausal women*, Journal of the American Medical Association, no 277/1997, pp. 1287-1292.

<sup>13</sup> JE Manson, FB Hu, JW Rich-Edwards, GA Colditz, MJ Stampfer, WC Willett, FE Speizer, CH Hennekens, *A prospective study of walking compared with the prevention of coronary heart disease in women*, The New England Journal of Medicine, no 341/1999, pp. 650-658.

<sup>14</sup> M. Matsusaki, M. Ikeda, E. Tashiro, M. Koga, S. Miura, M. Ideishi, *Influence of workload on the antihypertensive effect of exercise*, Clinical and Experimental Pharmacology and Physiology, no 19/2002, pp. 471-479.

Although every intense physical activity is rarely associated with a heart attack or sudden cardiac death, there is some risk<sup>15</sup>. Even individuals who exercise regularly have a temporary transient increase in the risk of sudden death during and immediately after rather vigorous physical activity.<sup>16</sup> Many of the studies conducted on men show an inverse relationship between physical activity and the general risk of colon cancer<sup>17</sup>. Also, large cohort studies in women have found a strong and negative relationship between physical activity and colorectal cancer<sup>18</sup>. All daily and regular moderate physical activity can also help maintain the functional independence of the elderly<sup>19</sup> and can even alleviate symptoms, as well as improve the functioning of people with rheumatoid arthritis or osteoarthritis<sup>20</sup>.

### **Healthy eating a component of a healthy lifestyle**

For a proper lifestyle, a large interaction has adequate nutrition, which is an inseparable element of a healthy lifestyle. Eating and

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<sup>15</sup> Physical Activity and Health: A Center of Surgeon General Atlanta, GA: Centers for Disease Control and Prevention, the National Center for Chronic Disease Prevention and Health Promotion. USDHHS (U.S. Department of Health and Human Services) (1996).

<sup>16</sup> H. I. Kohl, K. Powell, N. Gordon, S. Blair, R. J. Paffenbarger, *Physical activity, physical fitness, and sudden cardiac death*, Epidemiologic Reviews, no. 14/1992, pp. 37-58.

<sup>17</sup> M. Lee, R. S. Jr. Paffenbarger, C. Hsieh, *Physical activity and risk of developing colorectal cancer among college alumni*, J Natl Cancer Inst, No. 18/1991, 83 (18), pp. 1324-1329.

<sup>18</sup> M. E. Martinez, E. Giovannucci, *Leisure-time physical activity, body size, and colon cancer in women*. Nurses' Health Study Research Group, J Natl Cancer Inst., No. 89 (13) / 1997, pp. 948-955.

<sup>19</sup> M.E. Nelson, M.A. Fiatarone, C.M. Morganti, I. Trice, RA Greenberg, WJ Evans, *Effects of high-intensity strength training on multiple fractures for osteoporotic fractures*, Journal of the American Medical Association, no 272/1994, p. 1909- 1914.

<sup>20</sup> W. H. Jr. Ettinger, R. Afable, *Physical disability from the knee osteoarthritis: The role of exercise*, Medicine and Science of Sports and Exercise, No. 26/1994, pp. 1435-1440.

assimilating food is the basic, basic need of every human being. In addition, a rational diet, rich in various nutrients, contributes to the healthy functioning of the body. Proper nutrition is an important, one of the most important factors of general physical development, because it provides the necessary ingredients for the construction of tissues and energy needed for physical activity. In addition, the regular consumption of meals by young people, mainly nutritious breakfasts, promotes very good disposition at school and well-being<sup>21</sup>.

Healthy nutrition, the right selection of different dishes, in terms of their elements, method of preparation for consumption, as well as the number, number and distribution of meals over time, they have a very large impact on the growth and overall human development. Nutrition should always be properly adapted to each stage of life. Improper nutrition is even a direct cause or a risk factor for many diseases. In addition, it is estimated that there are about 30-50 disease units, or health deviations, very common in the population, whose main cause is poor food quality and diet. It should be emphasized that the consequences of these disorders are particularly dangerous in young people during adolescence. What is important, on the one hand, the reason for such disorders may be the incorrect perception of yourself, therefore any “unnatural” needs of excessively limited eating, anorexia, or vice versa, may end up with eating disorders, or bulimia. In turn, on the other hand, there is even a surge of advertising for unhealthy food, often harmful to young organisms, as well as easy access to it and “temptation” in various ways with these products, through producers and traders. All well-known Polish dietary habits often deviate from the ideal as well as global recommendations of proper nutrition, which in turn allow for a healthy and long life. Nutritional errors in Poland are widely known and are also

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<sup>21</sup> B. Woynarowska, *Health Education. Academic Handbook*, PWN Scientific Publishers, Warsaw 2007, pp. 35-37.

commonly ignored. One of such mistakes is not eating breakfast, which is considered the most important meal. After night sleep, the concentration of all glucose in the blood is very low. It impairs the function of cells, in particular the brain, for which glucose is the only source of energy. This has a very adverse effect on all cognitive processes, especially on the speed of recall<sup>22</sup>.

The following figure shows the latest nutrition pyramid. Drawing. Food pyramid 2017



Source: V. Messina, V. Melina, A. Reed Mangels, *A new food guide*, „Canadian Journal of Dietetic Practice and Research: A Publication of Dietitians of Canada = Revue Canadienne De La Pratique Et De La Recherche En Dietetique: Une Publication Des Dietetistes Du Canada”, 64(2)/2017, s. 82-86.

In a correct diet should be much more vegetables than fruits and more raw products than those subjected to thermal treatment. It is very important to drink plenty of water during the

<sup>22</sup> B. Woynarowska, *Care for the body*, [in:] *Health education*, edited by B. Woynarowska, PWN, Warsaw 2008, pp. 273-293.

day (it can also be herbs or teas). However, do not drink directly before or after a meal, in order not to disturb the digestive processes in any way. However, it is best to drink water with rather small sips. That's how the body gets hydrated. You should also take care of the variety of your daily diet. This will provide the body with all the nutrients it needs. It's worth reaching for seasonal products, because they are the healthiest. In winter, you can use frozen foods. It is at this time of year that a large majority of fresh vegetables, as well as fruit contains a lot of harmful substances, which are designed, for example, to generally survive such products in transport from distant countries. It is good to limit or even avoid:

- hardened vegetable fats,
- animal fats,
- salting,
- processed foods (especially those containing dyes, flavors, and preservatives that can often be carcinogenic),
- sugar (including colored carbonated beverages)<sup>23</sup>.

Proper nutrition is of special importance in adolescents due to a fairly intense growth and maturation process. Both deficiencies of various nutrients and their excessive consumption have very negative health consequences. In addition, deficient nutrition in terms of quality and quantity contributes to the deterioration of health, as well as impaired functioning of the immune system or reduced cardiorespiratory fitness, often disrupting normal bone development and causing excessive irritability, as well as reduced concentration, and often consequently, it even leads to worse results in education by young people. Incorrect way of feeding in his youth, at a later time is not able to compensate for the previously lost possibilities of mental

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<sup>23</sup> T.T, Shintani, S. Beckham, AC Brown, *The Hawaii diet: adlibitum high carbohydrate, low-fat multicultural diet for the reduction of chronic diseases, hyperglycemia*, Hawaii Medicine Journal, No 60 / 2001, pp. 69-73.

and physical development. On the other hand, excessive consumption of food by adolescents leads to the formation of obesity or overweight, which may be caused by abnormal, fixed in the family, chosen way of nutrition, primarily due to too high calorie daily diet, excess animal fat as well as simple sugars (sugar, or also confectionery) and too little physical activity. A child who is overweight is 10 times more likely to be obese in adulthood, while in a young person who is overweight, the risk is up to 28 times higher. In addition, too much food intake in childhood may promote the development in adulthood of various chronic diseases, such as, for example: type 2 diabetes, ischemic heart disease, hypertension or cancer<sup>24</sup>.

### **The importance of health-related habits during adolescence**

Lifestyle, as well as all the health behaviors that comprise it, take shape throughout their life, starting from early childhood. Among these health behaviors, healthy behaviors, i.e. healthy ones are also distinguished, which include: physical activity, rational nutrition, as well as caring for personal hygiene, proper interpersonal contacts, coping with stress, reporting on various preventive examinations and all anti-health behaviors, i.e. those that threaten health (using alcohol, smoking cigarettes, psychogenic drugs, or accidental sexual intercourses). Taking risks lies in the nature of every young person. Young people need to experiment, check their abilities, learn about the rules governing life and learn to make decisions. The effects of risky behaviors for health only reveal themselves after many years. It should be noted here that all young people often do not notice the direct connection between their behavior and their own health. It is a less susceptible group for health education and

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<sup>24</sup> J. Charzewska, B. Wajszczyk, *What should be the correct, balanced diet? The role of a varied diet*, [in:] *The rules of proper nutrition for children and adolescents and tips for a healthy lifestyle*, M. Jarosz (ed.), Institute of Edibles and Nutrition, Warsaw 2008, p. 29.

prevention programs that would allow even better, healthier, later adult life<sup>25</sup>.

Adolescence, or puberty, is the period of life between childhood, and adulthood, which is characterized by transformations in the structure and appearance of the body (biological maturation), as well as the psyche - shaping personality (or mental maturation), shaping attitudes towards one's and the other sex (so-called psychosexual maturation), fulfilling a proper social role (social maturation) ). In addition, puberty depends on various genetic, gender, environmental, as well as climatic and cultural factors<sup>26</sup>.

The transformations of the entire period of adolescence have the task of preparing the unit to fulfill the most important tasks in adulthood. Therefore, it is an extremely important time in the life of every human being, and its course has a large impact on subsequent ways of functioning and undertaken activities. The most important effect, or the relatively harmonious development of all spheres of life, is the appropriate shaping of a mature personality, allowing a man to carry out tasks in adulthood. One of the important aspects of the whole process of growing up is also intensive mental development, which is expressed in the improvement of cognitive functions, such as memory, attention, perception, imagination, learning, thinking, as well as reasoning, creating concepts. During this time, the sensitivity and overall sensitivity of the senses increases, which mainly affects the quality of perception teens. The attention itself becomes much more roomy, and the mechanical memory is transformed into strategic memory, arbitrary and logical. This has a fundamental impact on the general learning process, life that is becoming more and more properly organized and focused, not only on the mechanical

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<sup>25</sup> B. Woynarowska, *Factors conditioning health and care for health*, [in:] *Health education*, edited by B. Woynarowska, PWN, Warsaw 2008, pp. 44-74.

<sup>26</sup> A. Senejko, *Psychological defense as a development tool. On the example of adolescence*, PWN, Warsaw 2010, pp. 17-19.

memorizing of the content, but on logical assimilation together with understanding. In addition, in the adolescence period, the way of thinking also changes, thanks to which young people can see causal relationships and predict the consequences of their actions<sup>27</sup>.

In adolescence, you can observe increased emotionality, associated primarily with the physiological changes of the body and with the increasingly active participation of youth in the surrounding social life.<sup>28</sup> Changes occurring in the young body and the psyche of an adolescent and the demands on themselves as well as the expectations of adults, this period is the most difficult stage of human life. It should be added that the way in which this period runs depends not only on the person growing up. She also needs support from adults, especially teachers, parents and educators. In spite of the constantly decreasing interaction of adolescent people with parents, however, parents still remain important in matters of the most important behavioral models of young people. Adolescents need warmth, love, as well as acceptance, understanding and support from parents and other adults, because in the adolescence period the personality of each young person is shaped and that's when he needs the right ideals, patterns that allow him to become a mature unit, fully realizing his abilities and capabilities<sup>29</sup>.

There are medical problems of adolescence, which are as follows: due to various fluctuations in the level of hormones, and in particular androgens, sweating and skin changes often occur, mainly in the form of youth acne. Very often depression is also

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<sup>27</sup> R.J. Gerrig, P.G. Zimbardo, *Psychology and Life*, PWN, Warsaw 2006, pp. 317-322.

<sup>28</sup> M. Żebrowska, *Developmental psychology of children and youth*, PWN, Warsaw 1986, pp. 54-56.

<sup>29</sup> I. Obuchowska, *Adolescence*, [in:] *Psychology of human development*, edited by B. Harwas-Napierala, J. Trempała, PWN, Warsaw 2017, pp.574-579.

present at this age (e.g. due to lack of acceptance in a given peer group), hormonal disorders, psychoses, and neurosis. Anorexia and bulimia may occur in girls. In addition, a sharp increase contributes to a significant weakening of the immune system<sup>30</sup>.

Health behaviors relate to very different behaviors, mainly related to the sphere of health, or behaviors, which in the light of modern medical knowledge usually cause specific (positive or negative) health effects. All these health behaviors are modeled, throughout their lives, and they always form in childhood, as well as youth under the influence of information and patterns transmitted by parents, peers, school, mass media and medical service. Behaviors related mainly to physical health also include care for the body, through physical activity, or rational nutrition, hardening, as well as the appropriate duration and quality of sleep. Behaviors associated primarily with psychosocial health are: using and giving social support, avoiding excessive stress, as well as dealing with problems. On the other hand, preventive behavior is: subjecting to preventive examinations, self-control of health and self-examination, safe behavior in everyday life (especially in road traffic as well as at work), as well as safe behavior in sexual life. It is also important that young people do not take risky behaviors, namely: tobacco smoking, alcohol abuse, or drugs not recommended by the doctor, as well as the use of other psychoactive substances (*see the European Health and Behavior Research Survey*). In addition, leading a pro-health lifestyle, it assumes: non-smoking, limited consumption of all alcohol, physical activity, as well as a healthy, balanced diet (mainly with special regard to the proper consumption of food, i.e. breakfast and not snacking between meals), safe sexual behavior, and also avoiding stress, moderate exposure to the sun, or complying with the prevailing rules of road safety, and finally carrying out periodic

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<sup>30</sup> A. Senejko, *Psychological defense as a development tool. On the example of adolescence*, PWN, Warsaw 2010, pp. 43-46.

preventive examinations and self-examination (i.e. self-control) of the body, e.g. breasts in young women<sup>31</sup>.

Inappropriate nutritional behaviors of middle school students consist in not maintaining general even intervals between meals, as well as skipping the first or second breakfast<sup>32</sup>. This phenomenon is also confirmed by research carried out by B. Zięba-Kołodziej, which shows that about half of the surveyed high school students do not consume the first (about 40%) and the second (about 43%) breakfast. However, 91% of students declare that they eat dinner, and 66% of them have dinner<sup>33</sup>. However, it is necessary for the proper development of each young person during adolescence receiving meals at very regular times. In particular, it is important to eat a valuable breakfast<sup>34</sup>.

The peers are equally important for shaping pro-health behaviors of youth. Colleagues, as well as friends, as well as parents and teachers, become, especially for adolescent teenagers, models of pro / or anti-health behaviors. It should be emphasized at this point that such research is also indicated by the conducted research<sup>35</sup>.

The school is also an environment that also influences the shaping of a pro-health attitude of young people. Purposeful and systematic activities of sporting and health education are not always sufficient to properly develop the habits of a healthy lifestyle

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<sup>31</sup> A. Ostrowska, *Pro-health lifestyles*, [in:] *Lifestyle and health, issues of health promotion*, ed.A. Ostrowska, Philosophical and Socjological Institute PAS, Warsaw 1999, pp. 13-32.

<sup>32</sup> B. Woynarowska, A. Oblacińska, *Health status of children and adolescents in Poland*, Infos of Governmental Analys Office 2014, 10, 170, pp. 1-4.

<sup>33</sup> B. Zięba-Kołodziej, *On the fringes of health, or health behaviors of high school youth*, Now. Lek., 81, 4/2012, pp. 330-336.

<sup>34</sup> B. Woynarowska, A. Oblacińska, *Health status of children and adolescents in Poland*, Infos of Governmental Analys Office 2014, 10, 170, pp. 1-4.

<sup>35</sup> M. Zadworna-Cieślak, N. Ogińska-Bulik, *Health behaviors of youth - subjective determinants and family*, Wydawnictwo Difin, Warsaw 2011, pp. 66-68.

for students. Often, the experiences and experiences of the pupil at school are in fact contradicted by the teachers or educational authorities of the assumptions. According to M. Kuchcińska, the conditions for a pro-health lifestyle of a Polish student at school very often do not even reach this goal. Solving quasi tasks through him (he enjoys the use of health services, as well as prepares a healthy meal) often clashes with the authentic working / learning conditions and rest from her at school, in the crowd, noise, often also under stress, about hunger, after hours of immobility in a bench, walking in the so-called I drive along the school corridors during breaks in lessons, with the possibility of access to tobacco and even drugs at any break, with the ban on using after school sports facilities, etc<sup>36</sup>.

However, the situations described are not at all similar to students' reluctance to do physical education. The conducted research also points to the deteriorating level of fitness and physical fitness of young people. The main reasons for this state should certainly include low physical activity of young people, as well as the implementation of the 4th PE lesson, long-term neglect at the general level of school education<sup>37</sup>.

*Mass media* play a significant role in the development of all pro-health behaviors of young people. They can therefore play a positive role in the general promotion of a healthy lifestyle, but they can also cause a lot of damage, for example by advertising sweets, as well as products that strengthen the body (energy drinks), or parallels, possible to buy without a prescription. Positive influences of the *mass media* can be seen in radio programs and television programs serving health as well as promotion of various forms of active rest and recreation, sports events; and in

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<sup>36</sup> M. Kuchcińska, *Health education - a company of boredom with helplessness* ?, [in:] *Contexts of health and pro-health education*, edited by M. Kuchcińska, E. Kościńska, Kazimierz Wielki University Publishing, Bydgoszcz 2010, pp. 135-159.

<sup>37</sup> *Sport development strategy in Poland until 2015*, Ministry of Sport, Warsaw 2011, pp. 17-19.

press articles on general hygiene and daily care for your body and mind; in various discussions of authorities in the field of medicine, or scientific programs and advertising spots, where idols of young people encourage a healthy lifestyle. Currently, the main carrier of information used by young people is both the Internet and television. They are not sufficiently used to promote a healthy lifestyle or health in general<sup>38</sup>.

The effectiveness of health-related preventive actions depends, for example, on knowledge of behavioral conditions that is conducive to health or constitutes a threat to health, as well as on what stage of human life prophylactic interventions are applied. It is difficult to change the established ways of behavior of young people, among which are recruited patients suffering from various cardiovascular diseases or cancer. Therefore, a better look at the stage of youth development, in which such behaviors reveal and perpetuate, and thus the period of late adolescence. We can definitely expect better effectiveness of prophylactic interventions aimed at promoting pro-health behaviors and elimination of risky behaviors. These actions should be taken with each young person<sup>39</sup>.

According to research, physical activity of adolescents decreases with age. In addition, the percentage of adolescents who achieve the recommended level of physical activity, mainly depending on the sex, ranges from 39-45% in 11-year-olds, it ranges from 27-40% in 13-year-olds, and in 15-year-olds it equals about 23-38%, and already 18-year-olds are only 11-17% (of which much lower values are for girls, and higher for boys)<sup>40</sup>.

Changing behavior becomes a much more difficult task with the passing age, and therefore, the chances of the success of the

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<sup>38</sup> M. Zadworna-Cieślak, N. Ogińska-Bulik, *Health behaviors of youth - subjective determinants and family*, Difin Publishing, Warsaw 2011, pp. 36-41.

<sup>39</sup> J. Mazur, A. Małkowska-Szkutnik, *Research results HBSC 2010*, Institute of Mother and Child, Warsaw 2011, pp. 7680.

<sup>40</sup> B. Woynarowska, *Health Education*, PWN, Warsaw 2007, pp. 65-67.

operation are reduced, so the time factor plays a significant role in this respect. According to C. Lewicki, health behaviors of every young person are always connected with its overall high level of body awareness as well as health, while anti-healing behaviors are most often the result of a low level of this disposal<sup>41</sup>. In turn, G. Akved emphasizes that in the general formation of students in any behavior that is conducive to health is just as important health education as different “health situations” at school. In this respect, the school does not differ from other institutions, such as, for example: a workplace. The only difference in this case is that all relationships between people in a given school take place at the pedagogical level, and this puts more responsibility in front of the school<sup>42</sup>.

### **Review of research on healthy lifestyle and ways of feeding girls during adolescence**

In a survey conducted by the Faculty of Health and Medical Sciences at the Krakow Academy of A. Frycz Modrzejewski was attended by 50 girls at the age of 16-19. Young people were asked which behaviors in their opinion make up their healthy lifestyle. The respondents most often indicated the appropriate amount of sleep (70% of girls), as well as the diet (58%), physical activity and no addictions (about 40%) were indicated to the same extent, while the most rarely indicated was prophylactic examinations (38 % of girls)<sup>43</sup>.

The research shows that the feeding preferences of girls during adolescence look as follows: they often consume meat products, dairy products, as well as sweets and *fast food*, much less often

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<sup>41</sup> C. Lewicki, *Health-system education analysis of issues*, University of Rzeszów Publishing, Rzeszów 2006, p. 43.

<sup>42</sup> *Health and school*, edited by B. Woynarowska, Doctors Publishing PZWL, Warsaw 2000, p. 424.

<sup>43</sup> M. Seń, E. Maciak, A. Felińczak, D. Lizak, *Health behaviors of adolescent adolescents with congenital facial skeleton*, A.Frycz Modrzejewski Cracovian Academy, Department of Health and Medical Sciences 2016, p. 111.

reach for raw vegetables, cereals, cheese and fish. More often, they ate fruit and saw mineral water. The respondents talked about the habit of eating between meals; most often they were different sweets (52%) and crisps (22%). Only 12% of respondents do not reach for snacks. Girls very often eat sweets. Worrying is the fact that 50% of young girls indicate that they drink alcohol several times a week or at least once a week (25%). The respondents reached even more often for cigarettes (48%)<sup>44</sup>.

In order to be able to successfully implement a pro-health lifestyle one should have a specific level of knowledge on this subject. In this case, the adolescents were asked what is the most important source of knowledge about health and care for health. The majority of young people pointed to specialists in this field (58%), which is justified later the order was indicated for the family (11%), the press and the Internet (8% each) and television and books (6% each)<sup>45</sup>.

However, the health behaviors of the girls surveyed raise concerns. Very often they display incorrect eating habits (excess of various animal products and sweets, low consumption of vegetables and cereal products and water), moreover, they reach for alcohol, cigarettes and even drugs (6% of girls), are also subject to stress and cannot cope alone with it in a rational way (overeating, alcohol, cigarettes), without adequate support from adults<sup>46</sup>.

The research was carried out in 2011 among 104 students in the III and IV classes, mainly two secondary schools, during the educational hour. All respondents were aged 17-19. Girls were the most numerous group (67.3%)<sup>47</sup>.

Only a little more than half of the examined adolescent girls

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<sup>44</sup> Tamże, p. 112.

<sup>45</sup> Tamże, p. 113.

<sup>46</sup> M. Seń, E. Maciak, A. Felińczak, D. Lizak, *Health behaviors ...*, dz. cyt., pp. 116-117.

<sup>47</sup> D. Ponczek, I. Olszowy, *Youth lifestyle assessment and awareness of its impact on health*, *Hygeia Public Health*, 47 (2) /2012, p. 175.

(52.9%) consumed breakfast every day, about  $\frac{1}{4}$  sporadically, as well as less than 20% often. There were also 4 people (3.8%) who, unfortunately, did not eat breakfast at all. In terms of the frequency of eating - most young women had three or more meals each day (83.6%). Only one of them consumed only one meal a day. Daily dairy products, as well as meat and sweets, were the most commonly used daily product in the diet. However, only  $\frac{1}{5}$  consumed various fruits every day, and 12.5% never consumed whole-wheat bread, which is unsatisfactory. In turn, slightly more than half of the respondents in their lives did not use the diet because, according to their own self-esteem, they had normal weight, and 26.9% did not use the diet yet, but thought that they should lose some weight. 12.5% used diet, or did something towards general weight loss, and about 10% of them thought that they should put on weight, which is why there is no question about a slimming diet. Less than 40% of the surveyed girls believed that their current diet did not meet the principles of healthy nutrition, which is confirmed by the above results. The influence of gender on the responses to the topic on nutrition was also examined. Analysing all the answers - the girls to a lesser extent than the boys examined consumed sweet sodas. Also much fewer girls (24.3%) consumed meat every day, and many more (57.1%) ate it 2-4 times in one week. There were no significant correlations between BMI (*Body Mass Index*), and general issues concerning the diets of the studied group of girls<sup>48</sup>.

During adolescence, especially in young girls, there is often a fertile ground for the general appearance and development of various eating disorders, which include anorexia nervosa, bulimia nervosa, and also binge eating syndrome, etc. A number of authors agree that the most vulnerable people are in the 10/12 age group to 20/23 years<sup>49</sup>.

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<sup>48</sup> Tamże, pp. 176-177.

<sup>49</sup> K. Nowak, *Socjodemographic and family factors of eating disorders of youth*, Pedagogical Yearbook of Lublin, V. XXXII-2013, p. 121.

In the literature on the subject there is more and more information about the causes, character and consequences of anorexia and bulimia, which most often begin already in early adolescence, and intensify and develop in the later period of adolescence. For this reason, the subject of these studies was related to the general measurement of the tendency to eating disorders in adolescence, and the main goal was to show the relationship that occurs between their severity, the form and sociodemographic factors, as well as factors of the family environment<sup>50</sup>.

The research was carried out from March to May in 2012 on a random sample of junior high and high school girls operating in the Radom district. In addition, the main criterion for the selection of the research group was the age of the respondents, which included the period of adolescence. Particular attention is paid to the so-called critical age for the occurrence of eating disorders - hence the persons in the last years of this adolescence period (gymnasium class III, 15-16 years), as well as persons in early adolescence (II-III class of high school, or 17-19 years)<sup>51</sup>.

In turn, the answers regarding the analysis of the severity of eating disorders with regard to the gender variable shows that it is significantly higher in the girls' groups. It is noteworthy that students aged 17-19 have received quite a high score, moreover, they show an increased tendency towards various behaviors related to the use as well as compliance with the diet. Moreover, a comparative analysis of the results between girls' subgroups coming from lower and upper secondary schools indicates that eating disorders increase with age (female students aged 17-19 have statistically higher scores than respondents aged 15-16)<sup>52</sup>.

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<sup>50</sup> Tamże, p. 131.

<sup>51</sup> Tamże, p. 132.

<sup>52</sup> Tamże, pp. 136-137.

### **Requests and postulates**

Based on the analysis of the results, a number of research conclusions have been drawn, most of which are confirmed by scientific results. The vast majority of the surveyed girls stated in line with the global trend that healthy eating and physical exercise are associated with a healthy lifestyle. In addition, most of the respondents were of the opinion that running a healthy lifestyle is no problem, but it does not lead SOMETHING. On average, half of the respondents engage in physical activity regularly, i.e. 1-2 per week.

Not a majority anymore, and on average, half of the girls surveyed are aware of the need to carry out preventive examinations, i.e. blood pressure, blood and urinary morphology and cytological tests. Unfortunately, the majority of them do not perform the tests regularly, and worst of all, only the smallest percentage of girls performs breast examinations.

Adequate sleep is a very important element of life. On average, half of girls sleep as long as possible, ie 6-8 hours a day, however, some of them sleep much too soon, because only 4-6 hours a day.

Smoking and drinking alcohol. The vast majority of the surveyed girls reported that they do not smoke cigarettes. Declaring that they smoked cigarettes, they admitted that they smoke different amounts each day. Similarly, the vast majority of respondents declared that they were drinking alcohol. Most often they consume alcohol once a month, and the beer they choose is beer, while the most common "occasion" of alcohol consumption are holidays and various celebrations.

Nutrition. Most of the girls surveyed do not have food allergies either she does not know about them. The conducted research shows conclusively that most of the respondents do not regularly eat breakfast, which is the most important meal of the day. Similarly, most respondents claim that they eat all meals quite regularly, because 3-4 times a day. They also indicated that in their

opinion they eat well enough, because they often eat fruits, vegetables and cereal products, however, some of them also often eat sweets and *junk food*. Fortunately, most say that it is rare. Interestingly, most of the girls surveyed are aware of the dangers resulting from unsystematic meals or eating too much sweets or *junk food*. Unfortunately, most of the girls surveyed do not drink enough water a day, drinking it within 1-2 litres. The low amount of water drunk is a nationwide problem. The same applies to regular checking of product labels. In addition, most respondents admitted that enriching their diet with supplements is rather sporadic.

At the end I want to notice that health the most important values in the life of every human being, let alone younger people during adolescence. It is conditioned by a large number of factors, among which are proper, shaped behaviors and knowledge, as well as factors completely independent of man. A general knowledge of the healthy lifestyle of a young person during adolescence is a necessary condition in the process of shaping their convictions about a healthy lifestyle. The very age of adolescence, or adolescence, is the time of important changes in the life of every man, which from his childhood lead him to adulthood. All knowledge about a healthy lifestyle concerns a variety of proceedings that are synergistic with each other, mainly with the health zone, that is, behaviors that have adequate health effects (positive or negative).

It is worth remembering that during adolescence diet should be individually selected according to general physical activity, appetite and height. Lack of proper nutrients at this time may even stop growth or weaken metabolism, as well as many menstrual disorders. Unfortunately, teenagers often do not pay sufficient attention to the fact that their meals are wholesome. They often reach for products of low nutritional value: in other words *fast-food*. Young adolescent girls often do not accept their appearance, and this can lead to various eating disorders, such as bulimia or anorexia. In this topic, it is necessary to pay particular attention to

the general health education of girls during adolescence in order to shape their proper pro-health attitudes. Properly developed healthy lifestyle in adolescent girls will certainly translate into their later health. Among the growing adolescents, it is necessary to promote “fashion for healthy nutrition”, show the nutritional value of vegetables and fruits. It is worth using in this matter the fact that healthy eating is “on top”. There are more and more places with healthy food. Also known are people (celebrities) promoting a healthy lifestyle. The developed habits at an early age result in health in adulthood. Proper care for the proper development of girls during adolescence and their knowledge about a healthy lifestyle can significantly eliminate in later years in an adult the possibility of developing the so-called “civilization diseases”.

Research results indicate that although most of the girls surveyed are aware of many factors of unhealthy lifestyle, including unhealthy eating, they still make many mistakes in this area, such as alcohol consumption, despite their young age, or excessive consumption of sweets or *fast-food* chains. It is in this area that further research should be carried out, which would give a scientific answer to the question: why despite the fact that young people in adolescence know about the harmfulness of the lack of a healthy lifestyle, they still do not persevere.

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## Kształcenie nawyków o zdrowym stylu życia oraz sposobie odżywiania się dziewcząt w okresie adolescencji

Przedmiotem artykułu stał się styl życia i sposoby odżywiania dziewcząt w okresie adolescencji. Celem głównym artykułu było ustalenie wiedzy o zdrowym stylu życia i sposobów odżywiania się wśród dziewcząt w okresie adolescencji. W trakcie procedury badawczej podjęto próbę odpowiedzi na następujące pytania szczegółowe:

1. Jaka jest wiedza badanych dziewcząt o zdrowym stylu życia?
2. Jaki styl życia prowadzą badane dziewczęta?
3. Jakie są sposoby odżywiania badanych dziewcząt?
4. Jak badane dziewczęta oceniają swoje style życia i sposoby odżywiania się?

Słowa kluczowe: zdrowy styl życia, wiedza o zdrowym stylu życia, sposób odżywiania się, dziewczęta, zaburzenia odżywiania, okres adolescencji, adolescencja