

## Motor activity as an indicator of a healthy way of life

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Published online: October 30, 2021

(Accepted for publication October 15, 2021)

DOI:10.7752/jpes.2021.s5374

### Abstract

The article describes the essence and content of the concept of "healthy lifestyle". The scientific achievements of scientists who have studied healthy lifestyle and its conditions are analyzed. The conditions for forming a healthy lifestyle are characterized. The role of motor activity in forming a healthy lifestyle is scientifically substantiated. The results of the study of students' observance of healthy lifestyle conditions are revealed. The purpose of the study is to reveal the essence of a healthy lifestyle, the conditions for its formation in students and the scientific justification of the role of motor activity in the formation, strengthening and preservation of human health. In order to analyze the lifestyle of students and find out its belonging to the category of healthy, an anonymous questionnaire was conducted among students of the Faculty of Physical Culture and Sports of the National University "Poltava Polytechnic named after Yuri Kondratyuk" during the 1st semester of the 2019-2020 academic year. The survey covered 160 students, including: 45 people from the 1st year, 25 - from the 2nd year, 20 - 3 courses, 22 - 4 courses and 48 masters from 5 and 6 courses. A special group of respondents consisted of 132 students studying in the specialties 017 "Physical Culture and Sports" (hereinafter – MS) and 227 "Physical Therapy, Ergotherapy" (hereinafter – GM). The results of the survey showed that 86.8% of students of the Faculty of Physical Culture and Sports (students who understood well and satisfactorily on the AWU) are familiar with the essence of a healthy lifestyle (hereinafter - the AWU) and the conditions of its formation. Conclusions. The results of the study of healthy lifestyle of students (on the example of students of the Faculty of Physical Culture and Sports of the National University "Poltava Polytechnic named after Yuri Kondratyuk") showed that young people are ready for the formation of ARS or are already concerned that the lifestyle meets the criteria of healthy. Young people approach this through the self-esteem of their own lifestyle and lifestyle of their friends and acquaintances, obtaining knowledge about health and healthy lifestyle and its composition, engaged in sports sections.

**Key words:** health, healthy lifestyles, motor activity.

### Introduction

Relevance, problem statement and its connection with important scientific or practical tasks. As evidenced by the recent events occurring in the world and related to the pandemic of the corona virus, human health is its highest value. After all, enjoyment of life is possible only if a person has physical and mental well-being without any symptoms of the disease. However, the state of physical and mental health of a person depends on a number of factors, which, one way or another, are socio-economic and psychological patterns. The main factors that influence, and then determine the state of human health are: lifestyle - 50%, environment - 20%, heredity - 20% and accessibility and quality of medical care - 10% (Rybalko, 2018).

A person is the creator of one's own health, which depends on his mature self-awareness, knowledge of health and behavioral strategies that determine his healthy lifestyle.

Analysis of recent researches and publications. Research of problems of healthy lifestyle in sociocultural aspect of university education was conducted by K. Gabrielyan, S. Gvozdiy, Y. Grigoriev, I. Ivanov, A. Kozykin, T. Malyarenko, R. Uzyanbayeva, L. Akhomoova, L. Polishchuk, A. Shchedrin; formation of value orientations of youth - I. Bekh, G. Vashchenko, T. Glazko, D. Davydenko, R. Kupchynova; general health issues and the formation of a healthy lifestyle among students – V. Builovy, T. Ivanova, A. Brovarynyky, Z. Polyakova, M. Khvatova, A. Shchedrin (Rybalko, Voznuk, 2018; Gozhenko, 2018a; Gozhenko, 2018b).

Analysis of research results of scientists (Rybalko, 2017; Rybalko, 2018; Ilha et al., 2010; Zaybak, Fadiloglu, 2004) allows us to consider the phenomenon of a healthy lifestyle as: a set of external and internal conditions of human life that determine the functional state of the systems of his body (Rybalko, 2017); a set of rational methods aimed at strengthening health and harmonious development of the individual (Rybalko, 2018);

a set of forms of human activity that ensures his health and successful life path (Zaybak, Fadiloglu, 2004); a form of daily life that includes relevant principles and rules that develop adaptive capabilities of the body, contribute to the successful formation, preservation, strengthening or restoration of health and full-fledged activities (Ilhan, et al., 2010); a lifestyle that involves daily motor activity and hygiene (Zaybak, Fadiloglu, 2004; Grygus et al., 2019); human activity under the condition of a balanced and rational diet, which provides the body with nutrients and energy for a full life (Zaybak, Fadiloglu, 2004). Ilhan healthy lifestyle is considered as a harmonious mode of combination of work and rest, optimal nutrition, physical activity, hygiene, lack of bad habits, and also contains the most important component – friendly attitude to others and to life in general in any of its manifestations (Ilhan, et al., 2010; Karpukhina et al., 2020; Nesterchuk et al., 2020).

The purpose of the study is to reveal the essence of a healthy lifestyle, the conditions for its formation in students and the scientific justification of the role of motor activity in the formation, strengthening and preservation of human health.

Work tasks:

- on the basis of the analysis and generalization of scientific pedagogical literature and physical education to reveal the essence and content of the concept of "healthy lifestyle";
- to distinguish and characterize the conditions for the formation of a healthy lifestyle;
- to scientifically substantiate the role of motor activity in the formation of a healthy lifestyle of a person.

### Material and Methods

The study is based on the use of general scientific research methods, namely: analysis of sources of scientific literature, synthesis of conclusions, comparison and observation.

*Participants.* In order to analyze the lifestyle of students and find out its belonging to the category of healthy, an anonymous questionnaire was conducted among students of the Faculty of Physical Culture and Sports of the National University "Poltava Polytechnic named after Yuri Kondratyuk" during the 1st semester of the 2019-2020 academic year. The survey covered 160 students, including: 45 people from the 1st year, 25 – from the 2nd year, 20 – 3 courses, 22 – 4 courses and 48 masters from 5 and 6 courses. A special group of respondents consisted of 132 students studying in the specialties 017 "Physical Culture and Sports" (hereinafter – MS) and 227 "Physical Therapy, Ergotherapy" (hereinafter – GM).

*Procedure / Test protocol / Skill test trial / Measure / Instruments.* The questions of the questionnaire included: students' understanding of the essence of the concept of "healthy lifestyle" and its indicators (components); determining your own lifestyle on its compliance with the category is healthy; distinguishing among indicators that determine a healthy lifestyle, basic and ranking of healthy lifestyle indicators by value and importance for maintaining absolute health; the presence or absence of bad habits; determination of the volume of motor activity by the level of physical fitness and physical activity; selection of food products that are constantly available in the diet. Each student who took part in the survey had to give self-esteem the necessary changes in their lives in order to form their own healthy lifestyle.

*Data collection and analysis / Statistical analysis.* The statistical analysis of the material gathered was carried out using the PS IMAGO PRO 6.0 / IBM SPSS 26, corporate licensee Nicolaus Copernicus University, Torun, Poland, and Microsoft Excel. For statistical analysis, the Pearson's chi-square test was employed to assess whether the research sample's dependencies were an effect of a more general regularity in the general population or a random output only. The test is applied when variables of qualitative and not quantitative character are used for the analysis. In statistics, V Cramer (sometimes referred to as Cramer's phi and denoted as  $\phi_c$ ) is a measure of association between two nominal variables, giving a value between 0 and +1 (inclusive). The statistical test result was the so-called test probability (p), whose low values proved the statistical significance of considered differences. The statistical significance in this analysis was assumed  $p < 0.05$ .

### Results

The results of the study and their substantiation. A healthy lifestyle is considered as a form of daily life, which includes appropriate principles and rules that develop adaptive capabilities of the body, contribute to the successful formation, preservation, strengthening or restoration of health and full-fledged activities (Biryushov, Torska, 2017; Cosmin, 2017; Ilhan et al., 2010).

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The results of the survey (Fig. 1) showed that 86.8% of students of the Faculty of Physical Culture and Sports (students who understood well and satisfactorily on the AWU) are familiar with the essence of a healthy lifestyle (hereinafter – the AWU) and the conditions of its formation. The rest (13.2%) students are not fully understood with the indicators (or components) of a healthy lifestyle. Therefore, they are ready to popularize and promote a healthy lifestyle among different groups of people

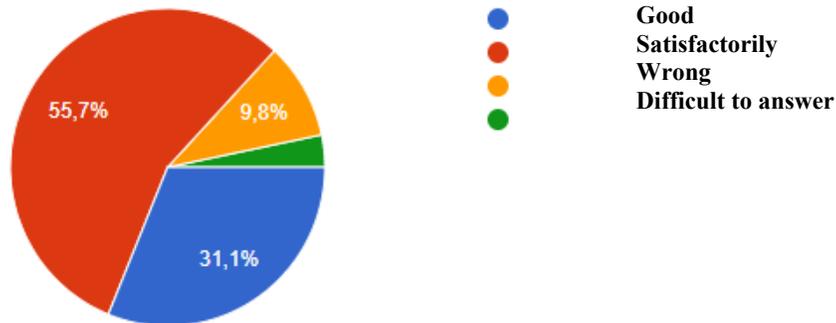


Figure 1. Understanding of a healthy lifestyle and the conditions of its formation by students of the Faculty of Physical Culture and Sports

Source: based on own research

Chi-squared independence tests Value df Asymptotic (two-sided) Chi-squared Pearson 300.000a 9 .000 Credibility quotient 204.644 9 .000 N important observations 160 and 62.5% of cells (10) have an expected size of less than 5. The minimum expected multiplicity is .09. Symmetric measures Approximate Value Nominal by Nominal Phi 1.732 .000 V Kramer 1.000.000 Convergence factor .866 .000 N important observations 160

Thus, among the respondents, 43.0% believe that LSD is limited to the absence of bad habits and only 57.0% focus on motor activity, healthy eating, hardening and hygiene. This means that students understand the rules of AJD, assess the importance of motor activity in compliance with the LSD and understand the importance of AJD. Although 34.9% of the surveyed students give a clear self-esteem of their own lifestyle and are critical of classing it as healthy, they do not distinguish it as a special life goal. It is commendable that only 1.5% of students do not realize the role of AJD in shaping and maintaining their own health, successful life; while all 100% consider it necessary to conduct LSD and constant motor activity, which is what the survey was focused on.

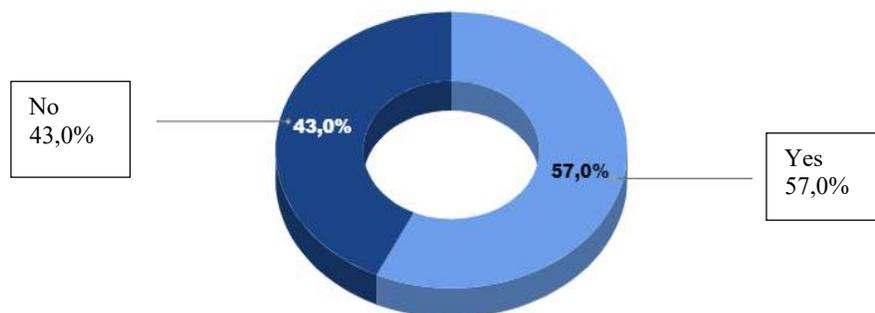


Figure 2. Understanding the importance of physical activity in the formation of a healthy lifestyle by students of the Faculty of Physical Culture and Sports

Source: based on own research

Chi-squared independence tests Value df Asymptotic (two-sided) Chi-squared Pearson 100.000a 1 .000 Credibility quotient 136.663 1 .000 Fisher's exact test .000 .000 N important observations 160 and 0.0% of cells (0) have an expected size of less than 5. The minimum expected number is 18.49. Symmetrical measures Approximate Value Nominal by Nominal Phi 1.000 .000 V Kramer 1.000.000 Continence factor .707 .000 N important observations 160

We adhere to the opinions of S.V. Garkushi, N.M. Holchenkova, O.M. Voedilova and V.V. Garkushi that motor activity is the main, mandatory and determining factor that causes the armed forces, and then human health (Rybalko, 2017).

The results of the students' survey to find out whether to lead a healthy lifestyle received the answers that are presented in Fig. 2. 3.

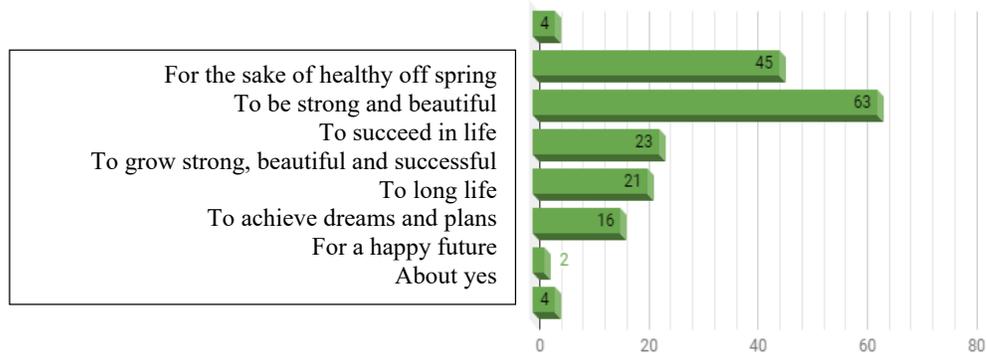


Figure 3. Students' answers to the question "Should I lead a healthy lifestyle?"

Source: based on own research

Chi-squared independence tests Value df Asymptotic (two-sided) Chi-squared Pearson 86.954a 6 .000  
Credibility quotient 27.183 6 .000 N important observations 178 and 57.1% of cells (8) have an expected size of less than 5. The minimum expected multiplicity is .04. Symmetrical measures Approximate Value Nominal by Nominal Phi .699 .000 V Kramera .699 .000 Continuence ratio .573 .000 N important observations 178

## Discussion

The conditions for the formation of a healthy lifestyle are: motor activity, balanced and good nutrition, the absence of bad habits, quenching and active rest. Some scientists include psychological calm (G. Apanasenko, L. Popova), safe sexual behavior (V. Tovt, I. Marionda, E. Syvohop, V. Susla), hygiene (O. Dubogai), etc.

One of the main indicators of a healthy lifestyle is motor activity, or the amount of physical activity. It combines various motor actions performed in everyday life and labor activity (Ketova, 2021).

Over the past decades, there has been a worrying trend of deteriorating health and physical training among students. One of the reasons for this is a decrease in the level of motor activity among young people, associated with an underestimation of the health and educational role of physical culture. Prolonged decrease in motor activity leads to muscle atrophy, posture and function disorders of internal organs, decreased mental and physical performance, the occurrence of chronic diseases of the cardiovascular system and metabolism. That is why motor activity is the main function of the human body, the development and improvement of which contributes to the formation of a healthy lifestyle.

Constant motor activity contributes to the development and activity of various muscle groups, improves the functions of internal organs and systems.

Active muscular activity helps to strengthen the activity of the cardiovascular, respiratory and other systems, determines the physical development and physical fitness of a person (Zaybak, Fadiloglu, 2004).

Nowadays, the main rule of a healthy lifestyle is many domestic (G. Apanasenko, R. Butov, S. Garkusha, L. Popova, L. Rybalko, V. Tovt and others) and foreign scientists (O. Andreeva, N. Ilhan, A. Zaybak) call properly organized motor activity during the day (Harkusha, 2015). All this is necessary to preserve and strengthen health, increase productivity, including in new and often unusual conditions for the human body. (Dido at al., 2021; Guimarães at al., 2018; Kindzer at al., 2020; Naisidou at al., 2017; Nogas at al., 2019; Novopysmennyi at al., 2020; Popovych, 2007; Popovych, 2011; Popovych at al., 2020; Rovniy at al., 2017a; Rovniy at al., 2017b; Shestopal at al., 2021). The optimal motor regime is understood as regulated by intensity of physical activity, which fully satisfies the biological need for movements, corresponds to the functional capabilities of the body, takes into account the specifics of professional activity and contributes to the formation of a healthy lifestyle, preservation and strengthening of health. The purpose of this mode is to achieve an optimal level of functional activity of the body (Ilhan et al., 2010; Gozhenko et al., 2018a; Gozhenko et al., 2018b).

The main characteristics of a person's motor activity are its physical preparedness and physical condition. Physical preparedness is considered as a result achieved in the training of motor skills and increasing the level of efficiency of the body, which are necessary for the assimilation and fulfillment of a certain type of activity by a person. While physical condition is an indicator of the state and level of physical health of a person. The latter depends on natural and socially conditioned factors (Lohvynenko, 2017).

Physical condition and physical training determine the physical development of a person, which can be changed and improved through physical exercise, work and rest, rational nutrition.

The second most important indicator for a person of a healthy lifestyle is a full and balanced diet. Studies of scientists have shown that a full, rational, balanced diet is necessary for growth, development, preservation of health, to combat infectious and adverse environmental factors. The peculiarities of nutrition of people depend on age, sex, health. To ensure daily physiological needs, a person needs to receive about 500-600 substances (the so-called nutrients), which include: vitamins, macro- and microelements, organic acids, phytocomponents, dietary fiber, etc. The combination of individual foods ensures the body needs nutrients (proteins, fats and carbohydrates).

The third most important indicator for a person of a healthy lifestyle is the absence of bad habits. After all, the specific mass of bad habits (smoking, drinking alcohol, drugs, other chemicals) in a complex of lifestyle-defining influences is extremely significant (Maksymova, 2017). That is why this aspect contains a large number of indicators that quite fully reflect the range of the problem – age and structural analysis of smoking, alcohol use, narcotics and the degree of awareness and awareness of the harms of such habits.

The last step in healthy lifestyle indicators are hardening, active rest and safe sexual behavior. A component of a lifestyle that involves safe sexual behavior has recently supplemented a healthy lifestyle. This was influenced by statistics of the spread in Ukraine in recent years of sexually transmitted diseases and AIDS, as well as deterioration of reproductive health of the population. With this in mind, important are things that reflect quite fully and variedly the main aspects of the problem: information about the beginning of sex life, characteristics of sexual intercourse of young people, the degree of awareness of means of preventing sexual diseases and contraceptives, sexual orientation, the degree of satisfaction with sex life, awareness of the problem of HIV/AIDS, attitudes towards risk groups and patients.

### Conclusions

1. After the surveys and conversations among the students who participated in the survey, in order to familiarize them with the components of a healthy lifestyle and the importance of motor activity and a full and balanced diet in maintaining and strengthening health.

2. Many students expressed a desire to attend the scientific circle of physical culture and sports, as well as a section on fitness and table tennis at the Department of Physical Ball and Sports of the Yuri Kondratyuk National University, participated in movements and flash mobs held at the university.

3. The results of the study of healthy lifestyle of students (on the example of students of the Faculty of Physical Culture and Sports of the National University "Poltava Polytechnic named after Yuri Kondratyuk") showed that young people are ready for the formation of ARS or are already concerned that the lifestyle meets the criteria of healthy.

4. Young people approach this through the self-esteem of their own lifestyle and lifestyle of their friends and acquaintances, obtaining knowledge about health and healthy lifestyle and its composition, engaged in sports sections.

### Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the institutional and/or national research committee's ethical standards and the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed Consent Informed consent was obtained from all individual participants included in the study. All subjects of the institutional survey gave consent for anonymized data to be used for publication purposes.

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