

SELF-ASSESSMENT OF HEALTH AND LIFESTYLE AS A BASIS FOR UNDERSTANDING HEALTH PRESERVATION BY SCHOOLCHILDREN

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The article describes the possibility of using the data on the health status and lifestyle self-assessment obtained during the questionnaire survey of high school students in the teacher's preventive activities aimed at preserving and improving the schoolchildren's health. The main indicators that according to the respondents determine their quality of life have been revealed, and health status is ranked only third. It has been found that 40% of students consider their health to be "good", while 53% currently do not worry about their health at all. Certain characteristics of physical activity, nutrition, sleep schedule, prevalence of bad habits in students attending schools of various types are provided. Despite high subjective assessment of physical activity, only 8% of schoolchildren do morning exercises every day, most of students do not attend sports sections. More than 40% of students sleep less than seven hours, which has a negative effect on the adolescents' health. Evidence has been obtained that 19% of schoolchildren have tried vaping and 13% vape regularly, which is definitely worrisome.

Keywords: lifestyle, health, school, teacher, students, nutrition, physical activity, bad habits, electronic cigarette

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Compliance with ethical standards: the study complied with the requirements of biomedical ethics, did not endanger the participants and was conducted in accordance with the ethical principles stated in the Declaration of Helsinki and the European Community directives (8/609EC). The informed consent was submitted by all study participants.

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САМООЦЕНКА СОСТОЯНИЯ ЗДОРОВЬЯ И ОБРАЗА ЖИЗНИ КАК ОСНОВА ФОРМИРОВАНИЯ ПРЕДСТАВЛЕНИЙ ШКОЛЬНИКОВ О ЗДОРОВЬЕСБЕРЕЖЕНИИ

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В статье рассмотрена возможность использования данных, полученных в ходе анкетирования учащихся старших классов по вопросам самооценки состояния здоровья, образа жизни, в профилактической деятельности учителя, направленной на сохранение и укрепление здоровья школьников. Выявлены основные, по мнению респондентов, показатели, которые формируют качество их жизни, при этом состояние здоровья занимает лишь третье место. Установлено, что 40% учащихся оценивают свое состояние здоровья как «хорошее», а 53% в настоящее время вообще не беспокоятся о здоровье. Раскрыты отдельные характеристики двигательной активности, питания, режима сна и отдыха, распространения вредных привычек у учащихся школ разных типов. Несмотря на высокую субъективную оценку двигательной активности, лишь 8% школьников каждый день делают утреннюю гимнастику, значительная часть учащихся не занимается в спортивных секциях. Более 40% учащихся спят менее семи часов, что негативно сказывается на состоянии здоровья подростков. Получены данные о том, что 19% школьников пробовали курить электронные сигареты, а 13% делают это регулярно, что, несомненно, вызывает тревогу.

Ключевые слова: образ жизни, здоровье, школа, учитель, учащиеся, питание, двигательная активность, вредные привычки, электронная сигарета

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Соблюдение этических стандартов: исследование соответствовало требованиям биомедицинской этики, не подвергало опасности участников и было проведено с соблюдением этических норм, изложенных в Хельсинкской декларации и директивах Европейского сообщества (8/609EC). Все респонденты подписали добровольное информированное согласие на участие в исследовании.

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The issues of health and lifestyle formation even occupied ancient philosophers. Reflections on the value of health for human being can be found in the writings of almost all philosophers. The issues of health formation were studied by Aristotle, Pythagoras, Socrates, Plato, etc. In their writings they analyzed the issues of the harmony of spirit and body in humans that to some extent provided the basis for healthy lifestyle formation. The knowledge gained through several centuries suggests that health has been of significant value for human life. It is obvious that people have been thinking about health and the factors that affect health formation since ancient times. The factors capable of affecting human health are diverse. These factors acting simultaneously have an impact on

the formation of personality, form the culture and the motivated health-preserving behavior [1, 2].

Child and adolescent welfare is one of the most important directions of the state policy in the Russian Federation. However, the impact of various environmental factors (ecological, biomedical, social, etc.) eventually increases morbidity in children of all age groups. That is why it is important to maintain and improve health since childhood: the educational institutions where children and adolescents spend most of their time come to the foreground here [3].

There are numerous studies of the features of the teaching process and nurture organization in modern school. Among other things these studies are focused on the issues of

whether the schedule of the classes is normal and scheduling is correct, as well as on the issues of the number of educational activity types per week or day, the use of health-preserving technologies, etc. The rapid development of technologies has led to the fact that active integration of the digital educational means, that have significantly changed the educational environment, into the teaching process has become a priority. That is why an urgent problem of ensuring hygienic life safety in children and adolescents in the context of using informational technologies has arisen [4, 5].

The study was aimed to discover the role of the health and lifestyle self-assessment in the development of understanding of health preservation in schoolchildren.

METHODS

The study was performed in the urban district of Voronezh during the academic year 2021–2022. The subjects were children aged 14–17 attending schools of various types: comprehensive schools (including those implementing the programs of in-depth and profile study of certain subjects), gymnasiums, lyceums. A total of 10 educational institutions were selected for the study. Selection of schoolchildren in the schools of all types was performed by systemic sampling. The respondents were selected using the following inclusion criteria: 9–10 grade students (the average class size was 25 people); age at the time of the study 14–17 years; availability of the informed consent to study participation under condition of anonymity.

The total sample size was 700 people, who were students at 10 selected educational institutions. A total of 70 people from each selected educational institution were included in the experimental group.

The questionnaire method was used for subjective assessment of the students' health status and lifestyle. The survey was performed on a voluntary basis using the online service [6]. The framework of the 63-item questionnaire was represented by the questions most often used in similar questionnaires, such as Attitude to Health by R.A. Berezovskaya, Index of Attitude to Health by S. Derjabo and V. Yasvin, Harmony in the Schoolchildren's Lifestyle by N.S. Garkusha, Health Status Self-Assessment by V. P. Voitenko, etc [7, 8].

Statistical data processing was performed using the Statistica 13.0 software package (StatSoft; USA). The data obtained were previously tested for normality.

RESULTS

Based on the data analysis it can be stated that more than a half of the respondents surveyed (64%) are quite happy with their lives. When comparing the answers given by students from educational institutions of different types, only slight differences between the answers can be seen. The majority of respondents quite happy with their quality of life attend gymnasia (68%) and lyceums (65%), while a slightly lower number attends a comprehensive secondary school (62%). The students who express a negative view of their quality of life have been also revealed, however, the share of such students is small.

To define the components of the quality of life that are most important for adolescents, we included the question "What do you think determines the quality of your life?" in the questionnaire for schoolchildren. When analyzing the data obtained, it can be noted that the majority of students (32%) believe that material living conditions determine their quality of life, family relationships are ranked second (23%), and health status occupies only the third place (21%). Different situation

regarding determination of essential factors contributing to the quality of life becomes evident when comparing educational institutions of various types. Comparison of the numbers of selected answers between students of educational institutions of various types, shows that the majority of students attending gymnasia (32%) and lyceums (42%) chose material living conditions as a factor determining their quality of life, while health status and family relationships were most often chosen by adolescents who attended comprehensive secondary schools.

Unfortunately, the surveyed adolescents do not consider their health status as the most important factor determining the quality of life: it is only ranked third. Furthermore, it should be noted that 40% of respondents consider their health to be "good", 30% think it is "satisfactory", 26% believe it is "excellent", while 4% and less than 1% think their health is "poor" and "extremely poor". Perhaps, the majority rank their health status only third due to the fact that more than a half of the respondents (53%) do not worry about their health, and their health has not changed significantly over the past year (59%).

Physical activity is one of the components of healthy lifestyle. Despite the fact that almost a half of the respondents (48%) consider sports and physical fitness as the factors that are crucial for health formation, only 8% of schoolchildren do their morning exercises every day and more than a half (56%) never do morning exercises. Training in sports sections is also of no interest: these are attended by only one third of the respondents.

Interestingly, too, that many schoolchildren consider their lifestyle as active (62%), however, a considerable proportion does not attend sports sections, does not do morning exercises every day, and generally believes that sports is just somewhat important for children of their age. Perhaps, the students put a dramatically different meaning in the concept of "active lifestyle" and believe that physical education lessons and walking outdoors are enough. Not only educational institutions, but also family motivate to do sports, since it is parents who lay the foundation for the need for motion in early childhood.

Physiologically wholesome sleep also plays a key role in maintaining health and forming healthy lifestyle. Sleep duration in school-aged children gradually changes, at the age of 15–17 it is about 9–8 h. After returning home from school only 20% of the respondents prefer active recreation (walking outdoors), 33% do their homework, which can take more than two hours (27% of the respondents), and 41% prefer sleeping to compensate the lack of sleep, which could cause shift to the later bedtime. Despite the fact that about a half of the respondents, specifically 52%, believe they have enough sleep, many of them reduce sleep duration without considering the consequences, i.e. the fact that this can affect their physical, emotional, and psychological well-being. Adolescents tend to stay far into the night with the books, smartphone or computer, thereby shifting their bedtime and going to bed after midnight (43%). According to the questionnaire survey, 41% of students sleep less than seven hours. Naturally, the lack of sleep is guaranteed in this situation, since the students have to get up early in the morning to go to school.

When performing a more thorough comparative analysis of the data acquired in different educational institutions, some features can be noted. A total of 56% of students attending comprehensive secondary schools believe they have enough sleep, while students attending gymnasia and lyceums believe the duration of their sleep is insufficient (54% and 54%, respectively). A total of 52% of students attending lyceums go to bed after midnight, 50% and 53% of students attending comprehensive schools and gymnasia go to bed between

22:00 and 24:00, while 39% and 49%, respectively, sleep less than seven hours. In our opinion, one of the reasons could be the shifting schedule. It is also likely that the lack of sleep is caused by wrong bedtime planning.

One of the groups of the risk factors contributing to unhealthy lifestyle is represented by bad habits (smoking, alcohol abuse, drug abuse). Recently vaping becomes increasingly important. Most of the respondents (68%) responded negatively to the question "Do you vape?", 19% tried vaping, and 13% responded positively. As for frequency, the option "few times a day" was selected by 10%. However, despite all this, teachers, physicians, and the majority of parents are worried about the growing popularity of vaping among adolescents. One of the problems related to vaping is as follows: adolescents hear that vaping is less dangerous to health than tobacco smoking and think it is not harmful. Furthermore, there is little hazard information on the wrappings of vapes. Despite the fact that 66% of the respondents responded positively to the question "Do you think vaping is harmful?", 25% of children noted they "did not know". Preventive work in the form of discussions and activities is constantly carried out at school. However, it is equally important to talk about it at home, not flatly saying "It is harmful", but discussing the issue. This requires that parents are also aware of the subject matter.

Organization of health preservation activities in comprehensive schools is a complex goal-oriented process that includes a combination of interrelated methods, techniques, approaches, and activities, the key role in planning of which is played by the schoolchild involvement in the process. Selection of the instructional techniques for development of healthy lifestyle skills should leave adolescents some room for personal fulfillment. This can be easily implemented by using the results of the adolescents' health status and lifestyle self-assessment obtained during the questionnaire survey. The students can see both positives and negatives of this or another lifestyle through their own example and examples of their classmates. It is important that the teacher plays a role of assistant in obtaining knowledge, but not the role of a tough boss, when conducting preventive work related to the issues of healthy lifestyle. It is necessary to interest the students and affect their value-motivational sphere. This is the only way to obtain effective results.

DISCUSSION

According to the currently accepted point of view, the children's health and health of the general population is affected by a wide variety of factors (internal and environmental factors), among which social (nutrition, housing conditions, lifestyle, psychological atmosphere, etc.), epidemiological, ecological factors, and factors of the teaching process are the priorities. Health status of children and adolescents is a major development indicator of the State. Subjective analysis of the students' life quality and living conditions has shown that it is material living conditions that determine the quality of life for the majority of schoolchildren, while health status is only ranked third. The focus on material things is also reflected in assessment of material living conditions and housing conditions.

It is well known that adolescence is a period when the child's body is through intense growth and development of all functional systems of the body. Maturation of biological processes and functions, as well as social and personality development of the child and shaping of his/her worldview occur during this period. Hormonal changes in the body that often shape the adolescent's behavior and attitude towards

processes and events happening all around are another feature of adolescence. Subjective assessment of their health status and lifestyle is one of the indicators allowing us to understand adolescents.

According to a number of researchers [9–11], the factor of intra-school environment predetermines 12% of morbidity in primary school students and 21% of morbidity by the end of school, i.e. its significance almost doubles. The socio-hygienic factor determines 27% of morbidity at school entry and 14% at the end of study, this was also somehow reflected in our study. Strengthening of the role of the so-called "school factor" is noted in children of school age. The impact of individual factors depends on the children's age. Such factors include malnutrition in children and adolescents, including school meals, intensification of educational process, teaching methods and technologies not matching the students' age-related features and functional abilities, the students' static posture and reduced motor activity, breaching the sanitary and hygienic rules by the educational institution, the lack of systematic work on formation of the value of health and healthy lifestyle [12–14]. This is confirmed by the results of our questionnaire survey of adolescents focused on studying the subjective assessment of health and lifestyle.

Studying the factors that are most important for assessment of health indicators has shown that lifestyle as a subjective factor of social development may be a leading factor that nowadays reflects health status. It accounts for 50–55% of all factors. Furthermore, it directly affects health, regardless of social and environmental conditions (the impact of social and environmental conditions and factors is mediated by lifestyle) [15, 16].

Shaping healthy lifestyle in children involves the use of a set of measures aimed at maintaining health, promoting healthy lifestyles, developing the desire to take responsibility for the health, implementing a personalized approach to healthy lifestyle formation in children, combating the risk factors of disorders, managing educational activities and raising awareness of the danger of smoking and alcohol abuse among children, preventing socially significant disorders in children. Political, medical, and educational components are important in terms of establishing the basis of healthy lifestyle. Scientific knowledge, rational daily routine and work-rest schedule, well-structured nutrition, preventive care, physical activity, no bad habits, etc. most often become the starting point for development of the desire for healthy lifestyle in schoolchildren [17–20].

The concept of "health preservation technologies" that has recently emerged is focused on consolidation of all intentions of the educational system aimed at maintaining, forming, and improving the students' well-being. Health preservation technologies address the issues of the students' health preservation and improvement.

CONCLUSIONS

The relevance of forming the concepts of "health" and "healthy lifestyle" in children and adolescents is beyond doubt. The surveyed schoolchildren have a rather high level of knowledge about health preservation, but, unfortunately, theoretical knowledge is not always used in real life. That is why it is extremely important for the teacher to develop motivation to be healthy and take responsibility not only for their own health, but also the health of others, in children during the teaching process and nurture. The joint efforts of students, teachers, parents, and medical professionals focused on promoting the knowledge about healthy lifestyle through personal example, experiments, and practical use of knowledge, play a key role in this process.

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