

Realization of Health-Saving Activities of Modern Students

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*Physical exercises
can replace a variety of drugs,
but no medicine can
replace physical exercises.
Angelo Mosso*

Abstract—The article talks about the need for constant maintenance of a healthy lifestyle to maintain strength in healthy patients and recovery. Questions of influence of physical training and sports on a human body are considered. The authors described positive changes in the body when performing motor exercises. The necessity and relevance of such activities are meant not only for a particular individual, but also for improving the working capacity of the nation as a whole. The results of the survey of modern students constitute the subject of awareness of the need for regular exercise and sports. The necessity of wide use of health-saving technologies in modern school and a university is reflected. The urgency of an informal approach to resolving the situation and the most active participation of all stakeholders is emphasized.

Keywords—*healthy lifestyle; physical therapy; school; students; health care; physical education; sports*

I. INTRODUCTION

Currently, human health [17] is considered as a complex concept that combines physical, somatic, mental, moral and social well-being. Being a dynamic state, human health requires constant maintenance in the form of regular, conscious and active training activities [7]. It is believed that the health of the individual is 50% dependent on his lifestyle [15]. The way of life of the individual related to health involves good nutrition, adequate physical activity, avoiding harmful habits, work-rest schedule, adequate sleep, training activities and hygiene [1].

Each person is unique and inimitable and has its own health, its own margin of safety, which consist of individual morphological and functional components, hereditary predisposition, the state of the surrounding macro- and

microenvironment [18]. The physical health of a modern person, especially a resident of a large city, is in a state of constant stress due to, first of all, environmental components, stress, daily forced contacts with a large number of people, malnutrition, sedentary lifestyle, the presence of bad habits. It is believed that after any disease the rehabilitation measures are necessary, at least equal in duration to the disease itself.

It is clear that “doing nothing” in relation to one’s health is currently not conducive to its preservation. Orientation of any person, at any age, to a healthy lifestyle is a leading factor in maintaining and increasing one’s own health.

It is noticed that now a large number of people at the age that is much higher than the average have got a natural extinction of life by pathological type. The awareness of health value and importance come with its loss [19]. And the pursuit of the “blue bird” begins, where any means that often aggravate the condition are good, can lead to new diseases. Health is easy to lose, but it is very difficult and sometimes impossible to restore it [20]. Maintaining the health of the “healthy”, strategic preventive focus of medicine are the main key areas of life of the individual and society as a whole.

II. RESULTS AND DISCUSSIONS

1. Role of Exercises

Rational motor activity, physical education and sports are an important component of health maintenance. Physical activity is the need of a living organism, as well as a necessary condition for life, which is important from the viewpoint of biological and social significance [4].

For modern civilized society, pathological conditions associated with hypodynamia are very relevant. It is safe to say that low physical activity and sedentary lifestyle disrupt the work of all organs and systems of the body. The heart, blood vessels, the bronchopulmonary system, digestive organs suffer, there is stagnation in kidneys and the liver, disturbed activity of the nervous and endocrine systems, there are hypotrophic and dystrophic changes in the bones and muscles, reduced immunity [5].

In bedridden patients the volume of muscle tissue visibly decreases, turgor and elasticity of the skin reduce; there is stiffness in the joints. Even physically fit astronauts after a long stay in weightlessness, when returning to earth, undergo comprehensive rehabilitation measures, literally, learn to walk again.

With age, as well as with any disease, accompanied by a restriction of motor activity, particularly acute consequences are those of hypodynamia. This is most pronounced in the early postoperative period.

In conditions of bed rest, especially severe ones, solution of potential problems requires prevention of bedsores, constipation, stagnant pneumonia, thromboembolic complications. Performing isometric exercises, breathing movements, the use of modern means of patient care, rational and timely expansion of an individual motor mode of the patient, wide use of rehabilitation technologies allow one to cope faster with the disease and to be independent of medical and nursing assistance [21].

In case of illness, it is important for medical personnel to properly motivate the patient to perform the shown feasible motor actions, explaining their great importance and benefit despite their apparent uselessness and small importance. And most importantly, it is necessary to do morning exercises even lying in bed without getting up. But a comprehensive positive effect on the whole body is guaranteed.

It is very important to vaccinate healthy people from an early age, perform morning exercises, use breaks to restore muscle tone, exercise walks before bedtime. Then regular exercises become a skill, a need, a good habit for life [8].

In summer, during holidays, it is especially good to do water exercises in open and closed water bodies. It can be swimming, games, gymnastics in water. The water mass has a unique effect: on the one hand, the buoyancy force significantly reduces the weight of the human body (9/10), facilitating the work of the musculoskeletal system; on the other hand, hydrostatic pressure makes it difficult to breath (thus making it easier to exhale). Compression of the peripheral veins increases the flow of blood to the heart, increasing its minute and stroke volume. All this has a training effect on the body as a whole. In addition, there is a well-known and widely used tempering and psychotherapeutic effect of water procedures.

Therapeutic physical culture as a scientific section of clinical medicine uses physical activity for medical reasons

with therapeutic, preventive and educational purposes, which allows you to quickly restore the patient's health and ability to work.

Gymnastic exercises in terms of muscle contraction are divided into dynamic, which can be active or passive, and static. Run drills stretching, relaxation, and correction of muscle tension, balance, coordination.

Taking into account all the features of a particular patient, specialists in physical therapy (doctor, instructor, methodologist) select the best methods and means of performing exercises, competently dosing them.

Traditional medicine provides for physical health measures at any stage of treatment of the patient: outpatient, inpatient, sanatorium, individual or group method.

Introduction of physical culture and sports in the general population recently has become a matter of the state. Returning to using the "Ready for Labour and Defense" standards, the extension of material-technical equipment of objects for exercise – all of it are the realities of our time [6].

Traditionally, the sanitary and educational activity of the nursing and medical staff is an important part of his professional work. This is especially true of family professionals who are designed to motivate the population of their site to the need for physical education and sports in order to primary prevention of the overwhelming number of diseases [22].

In educational institutions of different levels, there are very important issues of health-saving technologies in the learning process. Persons who lead a healthy lifestyle, regularly self-performing physical exercises-less likely to suffer from colds, better cope with socially useful work, more positive.

2. Some Aspects of Healthy Lifestyle of a Modern Student

The rapid pace of life of modern society and a high level of information, emotional stress in a university – make increased demands on the health of today's students. Proper organization of training and extracurricular time, daily implementation of life support components that contribute to the maintenance of health, are an important component of health-saving technologies. Only actively strengthening the physical, biological and psychophysiological potential, it is possible to expect the fullest professional self-realization, prolongation of creative and physical longevity of the individual [10].

Currently, a sharp intensification of mental work, taking place against the background of reduced motor activity, leads to a weakening of the physical status of students. It is believed that their motor activity is on average 60% of the norm in the training period and is reduced to 20% during exams. Hypodynamia adversely affects the work of all human organs and systems, functioning as a whole, negatively affecting health, causing, first of all, visual impairment and posture [9].

To study the awareness of students about the components of a healthy lifestyle and their realization, it was anonymously

completed the survey of 87 first-year students on various faculties of N.N. Burdenko Voronezh State Medical University after 1.5 months from the beginning of study at the university. The respondents were mostly female (80.5%), aged 17 to 21. We have developed a questionnaire comprised of eleven questions:

1. Sex.
2. Age.
3. Components of a healthy lifestyle.
4. What is an adequate physical activity?
5. Do you do physical exercises and go in for sport?
6. Do you exercise regularly in the morning?
7. How many times a day (week) do you walk?
8. Do you have a special place for walking?
9. What time do you go to bed and what time do you get up?
10. What do you regularly do in the morning in terms of a healthy lifestyle?
11. What do you want to improve in your daily routine?

The following results were obtained: all students were informed about a healthy lifestyle to some extent, but the emphasis was put mainly on nutrition, indicating this component in 98.9%, on motor activity – 96.6%, presence of bad habits – 60.9%.

Adequate physical activity was fully confirmed by 26,4% of the respondents; 6,9% were unable to answer the question. The rest of the first-year students partially disclosed the essence of the issue (66.7%).

Not all students are engaged in physical exercises - only 82.8%. There were 31% athletes, 22.2% are engaged in two sports and 14.8% - in three. And one student is even a candidate master of sports. Sports clubs and gyms are visited by 5.7% of the respondents.

Morning exercises are regularly done by 19.5% of students, sometimes – 20.7%; the vast majority (59.8%) of people do not do morning exercises.

60.9% of people walk, about an hour - 32%, do not walk – 27.6%, 11.5% sometimes walk. Students often answered that they do not have a permanent place for walking (50.6%) and visit such areas as city parks.

We noted the greatest variation in the figures regarding the time and duration of sleep. After midnight, more than half of the students go to bed (57.5%). The most common sleep duration was 6-7 hours for 57.5% of respondents. 27.6% of students sleep less than 6 hours at night, 14.9% of people - more than 7 hours.

Regularly in the morning 60.9% of participants are involved in hygiene, 54% have breakfast, 21.8% of respondents do exercises.

Almost all students wished to improve their daily routine (97.7%). More often they talked about the increase in sleep duration in 51.7% of cases; normalization of nutrition and allocation of time for walking - for 18.45 respondents.

Thus, first, medical students are better informed about the components of healthy lifestyle and their essential meaning, in particular – the concept of “adequate motor activity”.

Second, students at the beginning of their professional training know about overload of the body and engage in physical culture and sport, walk in the fresh air.

Third, despite the sufficient sleep duration, more than half of the participants feel the desire to sleep more.

Fourth, it is gratifying that students are aware of the importance of personal hygiene and have time to have breakfast in majority.

Fifth, we would like to see a greater percentage of young people doing morning exercises. We hope that a serious study of medicine and a visit to the Department of physical education will create a great interest and need for systematic implementation of the necessary physical activity.

3. Some Components of Health Preservation of Students During Training in High School

In difficult environmental and psycho-emotional conditions, against the background of the rapid pace of life and high educational requirements in a university, there is an illusion of uselessness and unimportance of exercising, active walks, etc. to maintain health at the proper level.

Let us also note that the so-called reserve of human strength is individual, and increased requirements for the resources of the body during the student period do not contribute to the preservation of health without its active promotion [13].

There is a concept of health-saving educational technologies, widely implemented in school education. But in higher education this idea is to be implemented [12].

The formation of culture of health, qualities of the individual aimed at health preservation and promotion should contribute to the adequate motivation of the modern student to lead a lifestyle that supports health for the entire period of training.

And, above all, in medical educational institutions such events should be welcomed, bearing in mind the Latin saying: "MEDICE, CURA TE IPSUM – Doctor, heal yourself".

In view of the above, it is a university teacher being in strict timeframes of conducting classes, following one's own ideas on the need to maintain health, who should take the initiative and organize the implementation of health-improving.

On the part of the teacher, health-saving educational technologies can be implemented in a whole range of activities:

1. Education of students in the field of health. On the one hand, medical students receive information about health in the course of vocational training. On the other hand, in the

process of subject-subject relationship, a teacher shares his knowledge about health and disease in the emerging specific situation. In addition, the teacher can acquaint students with little-known methods of recovery, for example, talk about isometric gymnastics.

2. A dynamic pause for five minutes once during a lecture and twice (three times) during a practical class. There is a recommended set of physical exercises, which is basic. However, more often it is necessary to modify this complex taking into account the peculiarities of the nature of the increased load of certain muscles, organs (body parts), body systems, including the visual analyzer. At the same time, the active and conscious participation of the teacher in the dynamic pause contributes to health.

3. Rational use of the time allotted for breaks during classes and its redistribution are necessary. For example, it is difficult to understand theoretical material, especially in the first year. A student should take a break not in 45, but in 30-35 minutes. In case of long classes in the mornings, by reducing the time of other breaks, it is necessary to make one longer pause for students to eat. During the break, it is important for students not to nap on their desks, but to leave their place of study.

4. Students must observe the rules of personal hygiene. Hygienic measures in this context do not have any age peculiarities.

5. Safe hospital environment for students staying in the units of the clinic provides for the mandatory use of protective medical clothing (robe, little cap, gloves, face mask) in compliance with measures to prevent nosogenic infection.

6. Mandatory ventilation of the classroom during breaks.

7. Rejection of bad habits and addictions. Medical students can see the negative consequences of smoking, alcoholism, drug use not only theoretically, but also practically in clinical examples with the help of a teacher.

8. Positive emotions, creation of a favorable emotional and psychological climate in the learning process and the healing complex performance. The implementation of this item will largely depend not only on the personal qualities of the teacher, his erudition, professionalism, pedagogical experience, but also the understanding of the need for them in professional and personal life.

4. Exercise and Sports are the key to Maintaining Optimal Health of Students

Physical activity is one of the main needs of a living organism, a necessary condition for normal life. Rational motor activity is an important component of health support and maintenance.

We are witnessing a fundamental change in views on physical culture and sport in Russia: the conceptual approaches and the regulatory framework are being updated.

Federal law "About physical culture and sport in the Russian Federation" No. 329 of 2007, the state program "Development of physical culture and sport" clearly define the basic and structural concepts of sport and physical culture. In 2014, the all-Russian sport complex "Ready for Labour and Defense" was revived, designed to improve health and patriotic education of Russians. Taking into account individual characteristics, certain requirements for the strength and endurance of citizens are imposed on it.

For modern civilized society, pathological conditions associated with hypodynamics are very relevant. It is safe to say that low physical activity and sedentary lifestyle disrupt the work of all organs and systems of the body.

The universities of the country regularly hold competitive competitions of students and teachers in gyms, swimming pools, sports grounds. For example, on 22 September 2018 the VII Student Games were held on the territory of the sport complex "Olympic" in the framework of events dedicated to the 100th anniversary of N.N. Burdenko VSMU. The grandiose sport event was attended by students and teachers of 17 universities of the city and competitions in 14 sports of individual, team, intellectual and physical character were held. As noted by the organizers of the competition in the welcoming speech, it is important to respect the opponents, to be able to enjoy someone else's victory, bearing in mind that the competition is designed to identify the strongest; however, all participants win, getting a charge of vivacity and further physical development.

5. Health-Saving Technologies in Modern School

The wealth of the country is the health of everyone, and healthy youth is the prosperous future of the people. However, the health of the younger generation is alarming due to the presence of a high percentage of chronic diseases in preschool children (35%) and schoolchildren (60%). Moreover, during the years of schooling, the physical health of children seriously deteriorates: first of all, the organs of vision and the musculoskeletal system suffer. It is believed that only every tenth graduate finishes school almost healthy.

The modern pace of life and the intensification of the process of education persistently require health-saving measures. Without awareness of the importance and the most active participation of all stakeholders in the implementation of health-saving programs, it is impossible to guarantee the preservation of health in its entirety [2].

One of the main activities of educational organizations at the present time is the implementation of health-saving technologies in practice. They are offered in a wide range and are designed to form teachers and students' ideas about health as a value that requires careful attitude, to motivate to maintain a healthy lifestyle.

In order to preserve and promote the health of young people, the preventive activities of the school administration and health workers, teachers and students themselves are of

particular importance. A whole range of activities carried out within the school walls can ensure the safety of the health of stakeholders in the subject-subject relationship. This includes:

- Competently compiled schedule of lessons, their alternation with the increase or decrease in the load within one day and a school week according to sanitary and hygienic requirements.
- Dynamic (physical) pause for five minutes should be present once during each lesson or after several hours of classes.
- Primary occupation of students in the first shift; correction of the volume of homework.
- Organized meals in the middle of the training shift.
- Enabling the activity of medical workers of the middle and top level, including dentists, ophthalmologists.
- Maintaining the necessary sanitary and hygienic level of the school, compliance with the rules of personal hygiene.
- Mandatory ventilation of classrooms during breaks.
- Rejection of bad habits and addictions. This should include not only smoking, alcohol and drugs, but also the habit of biting nails, misbehavior at the table, certain harmful eating habits.
- Music and vocal therapy.
- Game technology.
- Effective involvement of students in physical culture lessons, the cultivation of healthy leisure.
- Increase in the number of sports clubs within the walls of the school.
- Regular sport and recreation games.
- Greater involvement of parents in school recreational activities.

III. CONCLUSION

Thus, the implementation of health-saving measures in the process of life is the key to well-being of a modern person. The wealth of the country is healthy people [3]. It is generally accepted that life means happiness and good, and it is crime to shorten it. Health should be protected and multiplied as a huge, enduring value [11]. From a young age, one should take care of one's future: in everyday life, people should avoid bad habits, maintain healthy lifestyle. The health correction, maintenance and improvement will be realized when implementing the components of a healthy lifestyle, regular exercises and sport [16]. This is the key to maintaining an optimal level of health, especially for young people and the population of the Russian Federation as a whole. The modern pace of life, the intensification of the process of education and

production strongly require the use of health-protecting measures for all age groups and all segments of the population [14]. Without awareness of the importance and most active participation of all stakeholders in the implementation of health-protection principles, it is impossible to guarantee the preservation of health as such in the broadest sense of the word.

References

- [1] I. Ambartsumov and I.V. Lednev, "Physical culture of the Orthodox Christian," St Petersburg: Satis, 2005, pp. 15-17.
- [2] S.A. Babikov, L.L. Lobanova, G.M. Nasybullina, and E.V. Anufrieva, "Evaluation of the health potential of sports in school age," *Preventive medicine*, vol. 21 (2), pp. 28-33, 2018.
- [3] Cambridge Advanced Learner's Dictionary, 4th ed., NEW focus on writing section, Cambridge University Press, 2013, p. 1136.
- [4] V.A. Epifanov, "Medical physical culture and sports medicine: a textbook for high schools," Moscow: GEOTAR-Media, 2007, p. 68.
- [5] P.I. Filippov and V.P. Filippova, "Health education and promotion of healthy lifestyles," T.I. Stukalova, Ed. Moscow: Ministry of Public Health, 2003, p. 88.
- [6] S.S. Gosteva and S.R. Gosteva, "Physical culture and sport – dynamically developing branch," *Culture and physical health*, vol. 1 (48), Voronezh, pp. 5-9, 2014.
- [7] Y.V. Gridnev, A.V. Kashin, and L.G. Gridneva, "Main factors adversely affecting human health," Materials of the Anniversary all-Russian scientific-practical conference with international participation: Health – the basis of prosperity of Russia, Anapa, pp. 69-72, 2016.
- [8] L.G. Gridneva, A.V. Kryuchkova, and Y.V. Gridnev, "On the role of physical exercises," *Pedagogics. Psychology: Selected Papers of the International Scientific School: Paradigm*. Varna, Papers. Yelm, WA, USA, pp. 40-43, 2016.
- [9] L.G. Gridneva, A.V. Kryuchkova, and Y.V. Gridnev, "Some aspects of a healthy lifestyle of modern students," Early diagnosis and modern treatment methods at the stage of primary health care. Collection of articles of the XII conference of the doctors of primary health care in Southern Russia, S.V. Shlyk and G.V. Sawcut, Eds. pp. 31-34, 2017.
- [10] L.G. Gridneva, A.V. Kryuchkova, Y.V. Kondusova, M.A. Knyazeva, and Y.V. Gridnev, "Some components of preservation of health of students during training in higher education," Theoretical and applied problems of science and education: Scientific Transactions. According to the materials of the International scientific-practical conference. Tambov: Consulting company Ucom, pp. 54-56, 2015.
- [11] L.G. Gridneva, A.V. Kryuchkova, and Y.V. Gridnev, "The role of physical exercise," *International scientific school: Paradigm*. Summer. Bulgaria, pp. 581-584, 2016.
- [12] L.G. Gridneva, Y.V. Kondusova, and Y.V. Gridnev, "Implementation of health principles in the process of education," Actual problems and tasks in the spiritual, moral and physical formation of youth. Materials of Interregional scientific-practical conference with international participation, dedicated to the 75th anniversary of Stary Oskol medical College, pp. 27-29, 2012.
- [13] A.M. Knyazeva, A.V. Kryuchkov, Y.V. Kondusova, N.M. Semykina, and A.V. Knyazev, "Education of a healthy lifestyle in University," *International scientific school: Paradigm*. Summer-2015 collection of the scientific papers in 8 volumes. A.V. Berlov and L.F. Chuprov, Eds. pp. 130-134, 2015.
- [14] A.V. Kryuchkova, A.M. Knyazeva, A.B. Knyazev, Y.V. Kondusova, and R.M. Zlobina, "A healthy lifestyle is a sure path to longevity," *Applied information aspects of medicine*, vol. 17 (2), pp. 92-98, 2014.
- [15] Longman Dictionary of Contemporary English. The Complete Guide to Written and Spoken English. Pearson Education, 2000, p. 817.
- [16] Longman Dictionary of English Language and Culture, NEW Edition. Pearson Education, 2000, pp. 1307-1308.

- [17] Oxford Advanced Learner's Dictionary. New 9th ed. Oxford University Press, 2015, p. 726.
- [18] V.V. Ponomareva, Ed. "Physical education and health: the textbook," Moscow: Roszdrav, 2008, p. 23.
- [19] V.V. Ponomareva, L.G. Gridneva, and Y.V. Gridnev, "Principles of formation of healthy lifestyle," Materials of scientific-practical conference: problems and prospects for the development of nursing science, education, practice, V.A. Nikitin, Ed. Voronezh, pp. 86-92, 2013.
- [20] J.A. Surin, V.V. Prokofiev, and L.G. Gridneva, "Movement is life," Youth innovation Gazette. Materials of N.N. Burdenko XIV all-Russian scientific conference, Voronezh, vol. VII, p. 347, Annex 2018.
- [21] The Macmillan Encyclopedia, Aylesbury: Market House Books Ltd., 1988.
- [22] K. Zorin, "On the benefits of 'room gymnastics'," Slavyanka, vol. 5 (23), pp. 56-61, 2009.