

ОЦЕНКА СОСТОЯНИЯ ЗДОРОВЬЯ СТУДЕНТОВ-МЕДИКОВ В СОВРЕМЕННЫХ УСЛОВИЯХ

MEDICAL STUDENTS' STATE OF HEALTH ASSESSMENT IN MODERN CONDITIONS

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Среди негативных факторов, формирующих здоровье студентов-медиков, определены высокие психоэмоциональные нагрузки, интенсивный режим аудиторной и самостоятельной работы, низкая физическая активность, нарушение режима дня, наличие вредных привычек, нарушение принципов рационального питания. По результатам теппинг-теста более половины студентов имеет средне-слабый тип нервной системы и очень высокую и высокую лабильность нервной системы. Выявлены гендерные различия.

Ключевые слова: здоровье, вредные привычки, тип и лабильность нервной системы.

Among the negative issues forming the medical students health, such factors as high psycho-emotional stress, an intensive schedule of classroom and independent work, low physical activity, violation of daily routine, bad habits, violation of the rational nutrition principles have been identified. According to the tapping test results, more than half of the students have a medium-weak nervous system type and a very high lability of the last one. Gender differences have been revealed.

Key words: health, bad habits, type and lability of the nervous system.

Relevance. The state of health of young people as a significant social group of our society is not only an indicator of the existing socio-economic and social development of the country, but also an important indicator of the future labor, economic, cultural, defense potential of society [1, p.75]. Therefore, to know how the health of young people is formed, on what

factors it depends and how to influence these factors in order to obtain positive results is an extremely important hygienic task.

In Ukraine, there is a critical situation regarding the functional state of

students: 20% of children who come to school can be called healthy and only 10% graduate without obvious deviations. According to the results of health studies of modern youth, which were conducted in secondary and higher education, there is a low level of physical development and an increase in acute and chronic non-communicable diseases, among which prevail diseases of the nervous, endocrine, cardiovascular, digestive and allergic diseases [2, p.67]. During their studies at the university, the state of health of students deteriorates, the number of students in the main group decreases, and the number in the preparatory and special groups increases [4, p.101].

There is a tendency to increase disability among schoolchildren and students, the presence of deaths in physical education classes, and the deficit of physical activity in young people is 60-80% of the required level [5, p.8]. The latter leads to a significant reduction in physical and mental performance. It is expected that in the near future a large adult population (about 70%) will be formed, which will have low and below average levels of physical health [6, p.149].

Materials and methods. The structure of students' morbidity has been studied, the factors influencing the health of medical students at different faculties have been determined, the peculiarities of nutrition, daily routine, the presence of bad habits, physical and mental load in modern learning conditions have been established.

An assessment of the type and lability of the nervous system in 178 second-year students of the medical faculty on psychomotor parameters E.P. Ilyina in the modification of V. Okhromiy. The essence of the method is to perform quick stereotyped hand movements with dots on the paper with a pencil.

Epidemiological and statistical research methods were used in the work, as well as a survey of 200 students studying at medical and international faculties was conducted.

Research results.

Traditionally, among the factors influencing the health of the population (according to the WHO) are genetic - 20%, environmental -20%, the level of medical care - 10% and lifestyle - 50%. Studies have shown that 60-70% of freshmen have chronic pathology. The incidence of students depends on the profile of the higher education institution, and the lowest health indicators were registered among medical students.

In the structure of morbidity of adolescent students, the first places are occupied by respiratory diseases 71%; urogenital system - 6.5%; eye diseases - 6.4%; skin and subcutaneous tissue diseases - 3.8%; ear diseases, diseases of the musculoskeletal system. In the structure of morbidity of

students over 18 years of age, some differences were found, namely, the share of respiratory diseases decreased by 10%, with an increase in the proportion of diseases of the genitourinary system. The following positions were occupied by skin and subcutaneous tissue diseases, eye diseases, ear diseases and circulatory diseases.

The analysis of frequently ill students (4 times or more due to ARI) showed that there were no differences between males and females. For foreign students who came from India and Morocco, there are regularities: if in the first year every second student is often ill, in the third - about a third of girls and 15% of boys, then 6 is a group of students who have never been ill: 15% of girls and 35% of guys. But at the same time 80% of girls and only 60% of boys applied to the hospital.

Assessment of such a sociological indicator as «health self-assessment» allows to indirectly characterize the health of those respondents who did not see a doctor, although they had health problems, and in combination with others allows to predict people's behavior in case of risk groups. We divided all respondents into three groups - with «good health», «satisfactory» and «bad». The answers confirm the traditionally more optimistic assessments of men's health: 71% of respondents consider their health «good», which does not contradict the data of other studies, such as those conducted in the UK. Students of non-Slavic nationalities (Hindus, Moroccans), both men and women, more often than Ukrainian students, rated their physical health as «good», but a higher percentage was observed in women (95% vs. 83%).

Up to 75% of respondents live in dormitories. At the same time, half of them are in rooms with 3-4 neighbors. One third of respondents, both women and men, complain that their neighbors often prevent them from doing their homework, eating and even regularly ventilating the room.

A special situation has developed with the negative emotions that students experience during their studies. Girls in general experience them more often: 95.7% vs. 86.8%. The worse the self-esteem of health (as you move from the 1st group to the 3rd), the greater the proportion of boys and girls who «often» experience negative emotions 31.6% and 27.7%. At the same time, the share of boys and girls who «never experience them» is reduced by about 1.5 times. But, special attention should be paid to the second-year students of the medical faculty, because they are 2 times more likely than students of the international faculty to experience negative emotions in the category of «constantly».

One of the most important components of a healthy lifestyle is a balanced diet. Most students disregard this issue, because only 1/3 of students and 1/4 of female students «constantly» follow the principles of nutrition.

Concerned about the growing popularity of fast food for students, which contain a large number of flavorings, flavors, dyes, modified components.

There are imbalances in diets, insufficient consumption of complete proteins, excessive consumption of refractory fats and refined products, insufficient consumption of fresh vegetables and fruits, dairy products. Students prefer such a method of culinary processing as «frying». In some cases, there is an energy deficiency of the diet, in others - excessive consumption. Therefore, malnutrition becomes a serious risk factor for obesity, diabetes, cardiovascular disease.

It is established that 68% of boys and only 43% of female students add vitamins, multivitamins, as well as vitamin and mineral complexes to their diet. The most popular among them are Undevit, Vitrum, Alphabet, Biorhythm, Doppelgertz, Tianshi.

The prevalence of bad habits among all medical students ranged from 15% in girls to 24% in boys. But special attention should be paid to Ukrainian students, because every 4 girls and every second guy have them. 15% of girls and 36% of boys smoke, low-alcohol drinks, beer and wine are consumed by 25% of girls and 43% of boys.

Man-made civilization is characterized by a decrease in human motor activity and, accordingly, its energy costs. This is the result of reducing physical activity in the areas of production, life and training. As our research has shown, regular sports and morning exercises are not popular with medical students. Only 15% of students fulfill them. Unfortunately, up to 18% of students never exercise. 74% of students stay in the fresh air for up to 2 hours a day, almost everyone walks up to 1 km a day. Passive forms of leisure and the development of means of communication lead to the spread of hypodynamics among medical students.

55% of girls spend more than 4 hours a day doing homework, 15% - from 2 to 4 hours, while 45% of boys spend 2 hours. The feeling of fatigue is also natural, which is also more often experienced by girls, up to 90% Ukrainian.

75% of girls and 50% of Ukrainian boys assess their financial situation «below average», while among foreign students only 20% of them. At the time of the survey, 24% of boys and 34% of girls combined study with work. At the same time, 75% of respondents who study mainly in senior courses worked part-time in the sphere of treatment-and-prophylactic and pharmaceutical institutions (nurses, nurses, managers). But among those interviewed were fitness trainers and catering workers, as well as girls involved in network marketing and online sales. 80% of young respondents combined elements of mental and physical nature of work. The mental nature of work prevailed among the girls.

At the next stage, the assessment of the type and lability of the nervous system on psychomotor parameters EP Ilyina in the modification of V. Okhromy. The study involved 178 second-year medical students, of whom 113 (63.5%) were women and 65 (36.5%) were men. The technique was performed in the morning so that its performance was not affected by fatigue. Processing the results of the method includes the following procedures: counting the number of points in each square, plotting performance. The obtained graphs of the maximum rate dynamics were divided into five types: convex, smooth, intermediate, concave and descending (Table 1).

Table 1

The results of the evaluation of the graphs of the dynamics of the maximum rate of performance among students depending on gender

Nervous system type	Number of students	%	Number of girls	%	Number of boys	%
Smooth type	44	24,7	27	23,8	17	26,2
Descending type	36	20,2	23	20,4	13	20,0
Intermediate type	23	12,9	15	13,3	8	12,3
Convex type	4	2,3	2	1,8	2	3,1
Concave type	71	39,9	46	40,7	25	38,4
	178		113		65	

The results of the evaluation of the graphs of the maximum rate of student performance allow us to state that only 2.3% of medical students have a convex type of curve, ie a strong nervous system. Only a quarter of the surveyed population (24.7%) has a smooth type that characterizes the nervous system as a medium force. It is noteworthy that half of the students (52.8%) have an intermediate and concave type, which characterizes the nervous system as moderately weak, and a fifth of the surveyed population (20.2%) has a weak nervous system. At the same time, no significant gender differences were found.

The conclusion about the lability of the sensorimotor analyzer was determined by the total sum of points, which were translated into points. 17 students had a very high type of lability, but this type was registered 2 times more often among men (13.9% vs. 7.1% in women, $p < 0.05$). 84 students had high rates, but most often girls had this type (51.3% vs. 39.9%, $p < 0.05$). Girls also had lower and lower rates. Among 69 male students, there was a tendency to increase the incidence of moderate lability (43.1% vs. 36.3%).

Conclusions.

Thus, among the negative factors that shape the health of medical students are high psycho-emotional stress, intense classroom and independent work, low physical activity, violation of the daily routine, the presence of bad habits, violation of the principles of nutrition.

According to the results of the tapping test, more than half (52.9%) of students have a moderately weak type of nervous system and only 2.3% of medical students have a strong nervous system. 56.7% of students had very high and high lability of the nervous system, 38.8% medium and 4.5% low. High lability implies that the individual has such qualities as fast action, fast thinking, high throughput of the brain, a large amount of attention and perception, good memory, emotional stability, good adaptation and fast learning. Students with low lability are often inert in behavior, difficult to adapt to situations, but they have better long-term memory, they show high results in activities that require special organization and planning, mobilization of production attention and memory. Gender differences in the lability of the nervous system were revealed - high and low types were more often registered in women, while very high and medium types were more common in men.

As a part of a complex of improving actions concerning often and long-term ill students, especially from India and Morocco, obligatory systematic observance of a daily routine, observance of principles of a rational food and sufficient physical loading.

The main areas of health activities for Ukrainian students should be focused on compliance with the daily routine, combating bad habits and negative emotions, increasing physical activity.

We believe that the results of our research can be used in the formation of academic groups in the conditions of study in higher education. Analysis of the lability of the nervous system can be used in the development of curricula and programs, as well as to determine the threshold mental load in assessing the assimilation of educational material.

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ANALYSIS OF THE NEGATIVE EFFECTS OF WORK WITH A COMPUTER FOR THE ATTENTION OF A MAN AND ITS WORKING CAPACITY

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The work presents a study of the influence of working with a computer on human attention and working capacity. To conduct the study there was created a program that made it possible to assess the attention and speed of analysis of the visual information of the respondents. Attention was assessed before and after working on a computer; 103 respondents at the age of 20-22 and 54 at the age of 8-10 took part in the experiment. Studies have shown that at a certain hour of work there is a significant drop in attention and concentration, which can be regarded as overstrain of the cerebral cortex, visual analyzer and general fatigue of the subject. It will be advisable to make rest during prolonged work at the computer.

Key words: computer; working capacity; attention; visual information.

The problem of the impact of computer technique on human health is more pressing than ever. Because the number of professions and employees related to the use of computers is growing every year. More and more computers are involved in production. Multimedia technologies are used