

Research and analysis of the level of physical preparedness of Oles Honchar Dnipro National University students

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Purpose: to study and analyze the level of physical preparedness of Oles Honchar Dnipro National University students.

Material & Methods: the level of physical readiness of students was determined with the help of tests and standards for the annual assessment of the physical preparedness of the population of Ukraine, the results of which determine the level of development of the basic physical qualities: strength, endurance, speed, flexibility, agility. Students performed 5 types of tests.

Results: obtained results made it possible to compile the dynamics of the level of physical preparedness of students: high, decent, medium, low, and also an appropriate assessment of the physical state: excellent, good, satisfactory, unsatisfactory.

Conclusion: these data suggest that the majority of students are middle and low level of physical preparedness. In connection with the results suggested a set of exercises to improve the physical preparedness of students.

Keywords: level of physical preparedness, state tests, physical education, students, complex of exercises.

Introduction

Physical education is an indispensable component of all educational systems. The search for ways and means to improve the physical education of students is and is one of the current problems at present. In the successful solution of this problem, all structures of society are interested [1].

Students are the most vulnerable segment of youth, because they face a number of difficulties that are associated with the increase in the workload, low mobile activity, and relative freedom of student life. Students are the main labor reserve of our country; therefore the state of their health is the guarantee of the health of the whole nation.

Physical education of students lags behind foreign analogues in quality, there is a decrease in students' interest in physical education classes. All of the above affects the level of physical preparedness of students, their health and quality of life.

Any conscious and purposeful activity of the person assumes the account of its results. One of the forms of such an accounting is standards. They play an important role in upbringing, which determines its direction and the desired level of physical and sports training. An objective assessment of the physical preparation of students is conducted on the basis of the Cabinet of Ministers of Ukraine Decree No. 1045 of December 9, 2015 "On Approving the Procedure for Conducting the Annual Assessment of the Physical Preparedness of the Population of Ukraine" [5].

At the heart of this testing is, first of all, the diagnosis of the physical preparedness of students with the subsequent use of pedagogical measures.

Thus, an assessment of the physical and functional preparedness of university students is an actual problem.

Relationship of research with scientific programs, plans, themes. Many scientific works have been devoted to

the study of the level of physical readiness. It was determined that the problem of the physical condition and preparedness of students attracted the attention of scientific researchers.

Physical preparedness is the most important factor determining a person's health and working capacity, his success in mastering professional skills and skills, productivity of physical and mental labor [3].

The analysis of scientific and methodological literature made it possible to conclude that in the practice of the pedagogy of physical culture and sports, there is enough research to assess the overall physical preparedness of students. However, despite the experience, according to the studies of S. M. Kanishevsky, E. A. Zakharin, E. I. Ivanova, V. L. Karpman, N. A. Gudkov, the unsatisfactory state of health of student youth, as well as theoretical and methodological skills students of higher educational institutions. An important problem is the strengthening of this trend. We can say that at present the branch of physical education in universities is in decline, despite the law of Ukraine "On Physical Culture and Sport", GOSTs, as well as various instructions and orders that control the activities of educational institutions for physical performance.

Many authors who studied the problem of physical preparedness of students and conducted an assessment of state tests, expressed concern, because the level of development of physical fitness does not meet the standards.

Most students experience a lack of development of general professional qualities. One of the main reasons that negatively affects the development of the functions of the body is a sedentary regime, because when physical activity increases the nonspecific resistance of the organism to the negative effects of cooling, overheating, irradiation, the amount of information [4].

The results of the research of scientists indicate a significant number of students with poor health and unsatisfactory phys-

ical fitness, as well as an increase in the contingent, falls into special medical groups during the training process [6].

However, physical education in higher education institutions should promote health and development of motor abilities. To solve these problems, it is necessary to investigate the level of physical preparedness of students and, based on the results obtained, taking into account individual characteristics, to conduct effective physical education classes.

Purpose of the study: to study and analyze the level of physical preparedness of Oles Honchar Dnipro National University students.

Material and Methods of the research

Methods of testing, theoretical analysis and generalization of literary sources were used.

The study involved 250 students aged 17–21 years who studied at the I–V courses of the historical, chemical, biological faculty of Dnipropetrovsk National University O. Gonchar.

Results of the research and their discussion

In connection with scientific and technical progress in teaching, the system for assessing and controlling the level of physical preparedness of students in the university has changed. In particular, the Cabinet of Ministers of Ukraine introduced an obligatory annual assessment of the physical preparedness of the population of Ukraine [2].

In our study, an assessment was made of the level of physical preparedness based on the results of the State testing.

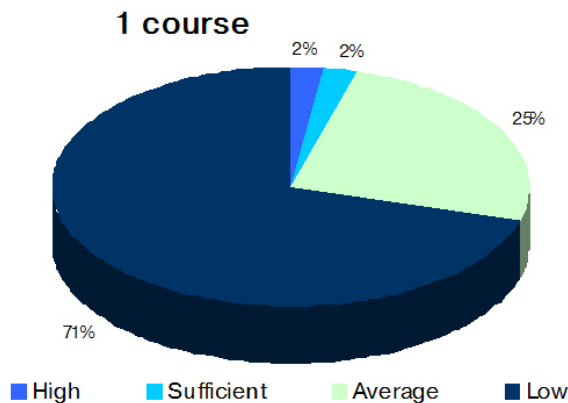


Figure 1. Assessment of the level of physical preparedness of students of 1 course

In Fig. 1 it can be seen that the level of physical preparedness of the students of the first year is very low. This suggests that this group of subjects has a large training load and low motor activity, and also indicates that during schooling, much attention was paid to physical education.

Among the second-year students there is no high and sufficient level of preparedness, the low and average ones prevail – about 63% and 37% respectively.

Among third-year students, a predominantly small percentage of subjects correspond to high and sufficient levels (approximately 16% and 11%, respectively). As in the 1st and 2nd

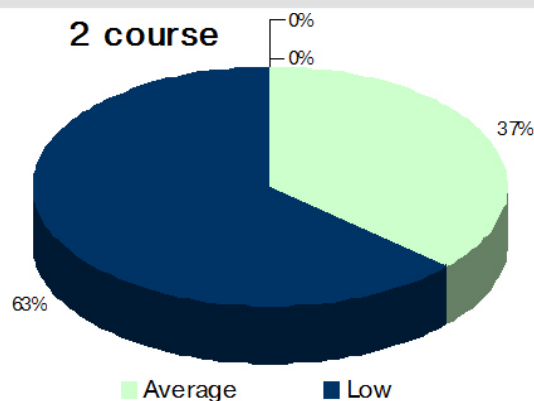


Figure 2. Assessment of the level of physical preparedness of students of 2 course

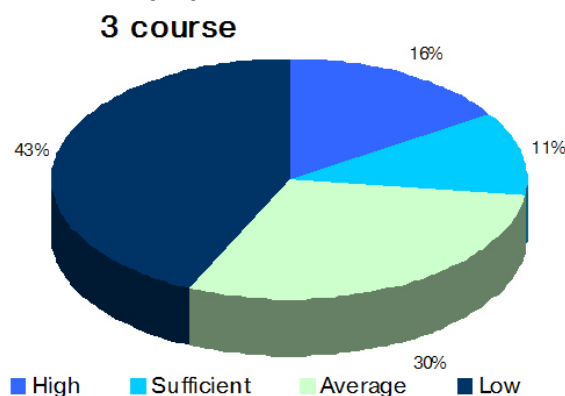


Figure 3. Assessment of the level of physical preparedness of students of 3 course

courses, the average and low levels of physical fitness prevail, but the result of the 3rd year students is generally better, because their physical education classes are more systematic and regular.

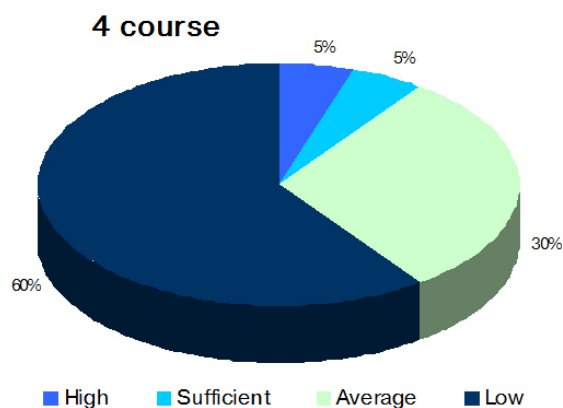


Figure 4. Assessment of the level of physical preparedness of students of 4 course

In Fig. 4 shows that only 10% of 4-year students have a high and sufficient level of physical fitness, and the remaining 90% does not meet the state testing standards.

Students of the 5th year also have a very low level of physical readiness, which is due to both the training load and the interest in physical education.

So, according to our study, it is determined that the best physical training is in the 3rd and 4th year (Fig. 6). However, it has been found that more than 40% of the subjects have a low

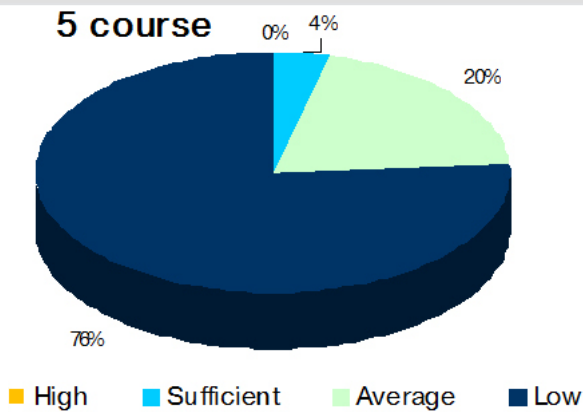


Figure 5. Assessment of the level of physical preparedness of students of 5 course

level of training, but no more than 16% – high. Comparing the results of the students who passed the tests, according to the gender distribution, there was a tendency: young men have a higher level of physical fitness than girls who, in turn, have low and average levels of physical fitness. All this testifies to the fact that young people are not physically prepared to meet the standards of the State testing.

So, it was found out that students of Dnipropetrovsk National University O. Gonchar are at risk, so new training programs should be used to improve physical fitness.

According to the results of the study it was found out that the students of the senior courses have better physical preparation, and the students of the first and second courses are rather low. This is due to the lack of hours of physical education in the educational process. With an increase in the number of physical education classes, the teacher has the opportunity to provide more theoretical and practical knowledge of students, as well as apply various techniques for improving physical condition, including stretching, skipping, and cardio training.

These types of training are useful for affecting a person's physical condition, and also do not require additional expensive equipment. Thanks to the use of skipping in the system of physical fitness and health improvement, there are positive changes in the morphological and functional indices of physical development, the functional capabilities of the respiratory system are expanding, and the adaptation of the cardiorespiratory system to the dosed load is increasing.

However, for self-study students lack experience and insufficient theoretical and practical knowledge to master these techniques. Therefore, it is recommended to engage with the teacher to monitor the process of classes and correct dosing of the load in accordance with the student's physical condition.

So, we offer a set of exercises with cardio workouts, which includes five exercises: "sit-ups with jumps", "pulling up the legs to the chest", "lunge with a jump", "squeeze strap" and "going straight to the ground with a leap" [7].

"Squats with jumps": stand upright, feet shoulder width apart, straighten your back. Perform a deep squat. Hips should be parallel to the floor line. Jump up. Gently land in the squat position and immediately repeat the jump. Do 15–20 reps.

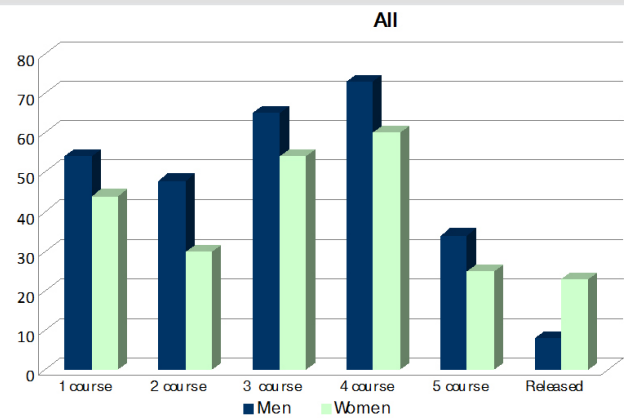


Figure 6. Assessment of the level of physical preparedness of students of 1–5 course

"Pulling the legs to the chest": take the emphasis lying on the arms outstretched, legs on the width of the pelvis, hands just slightly wider than the shoulders. Pull the knee of the right leg to the left elbow, return to the starting position. Then similarly with the other leg. Do 15–20 repetitions.

"Lunge with a jump": stand upright, feet to the width of shoulders, straighten your back. Lunge with your right foot forward. Sit down, deep down, knee forward. Pushed off the floor and jump, change the position of the legs in the air and land in a lunge with your left foot in front. Do 10–15 reps.

"Strap with pressing": take the emphasis lying on the elbows, keep a straight line from the shoulders to the ankles. Climb to the position of push-ups on the arms outstretched, do not bend in the lower back. Hold in the upper point and return to the starting position. Do 15–20 reps.

"Going straight to the ground with a jump": stand upright, feet shoulder width apart. Deep seated, put your hands in front of you. Then make a leap backward, making an emphasis lying. In this position, keep the straight line of the body. With the next sharp movement, go back to the squat position and immediately jump up. Do 10–15 reps.

Conclusions

According to the results of the analysis of scientific and methodological literature, as well as the results of testing students, we can state that more than 40% of students have intermediate and low levels of physical fitness. Therefore, students fall under the risk group. This is due to the insufficient number of physical education classes, which means that students have insufficient theoretical and practical knowledge in the field of physical training.

The data obtained create conditions for the development of new programs, depending on the level of preparation.

Recommended techniques for skipping, stretching and cardio. Also, a set of exercises with cardio training.

Prospects for further research in this direction. In accordance with the Resolution of the Cabinet of Ministers of Ukraine of December 9, 2015 No. 1045 "On Approval of the Procedure for Conducting the Annual Assessment of the Physical Preparedness of the Population of Ukraine", a further study of the level of physical preparedness of students.

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