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THE LEVEL OF PHYSICAL PREPAREDNESS OF STUDENTS OF HIGHER EDUCATIONAL INSTITUTIONS AS A PREREQUISITE OF MODULAR TRAINING

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Summary

A persistent deterioration in the health of the population and, in particular, students can be observed in recent times. Having entered into conflict with the real needs of renewal of society, the system of physical education of youth gave rise to the crisis. One of the key problems is changing of explanatory, illustrative and reproductive types of training in intensive technologies. On the basis of the analysis results established that the physical preparedness of students corresponds to the low level of development and is at a low and medium level. 42.9% of students have low level of physical preparedness, 36% of students physical preparedness is at a satisfactory level, and only 21.1% of students have a “high” level of physical preparedness. It means the need for modification of the system of methods, forms and means of teaching physical culture of students for improving the level of fitness. This situation leads to search for new, student-oriented teaching methods of physical training, in which students’ interests would be taken into account. Modular training system occupies a central place among them. The methodology of modular training must be based on the following key provisions: individualization of means and methods of training, increasing volume and intensity of training lessons, accented development of motor skills and on the basis of their motor skills and interest in physical culture. The methodology eliminates the excessive detail, revealing the space for creativity of the teacher, increases the role of complex problem solving.

Key words: students, physical culture, modular training, physical preparedness.

Introduction. During the period of democratic transformation and renewal of our society is increasingly important role and practical importance of physical training in the education of healthy, active, energetic, enterprising young generation. The fundamental decisions of recent years clearly identified

specific ways of implementation of mass physical culture in our daily lives. The current situation is caused by the fact that the current generation is living in an era that objectively reduces motor activity of people. Scientific studies have shown that the most effective factor to overcome these negative effects of scientific and technological revolution, the best way to promote health, preparation for labor and defense of native land may be only systematic exercise. As in other areas of life, foundations of physical culture of human in the broadest sense are laid early in life. Practitioners are well aware that serious flaws and gaps in physical development of young generation are difficult to compensate. The commitment to strengthening of public health measures puts forward before the bodies of the educational system more complex and important tasks.

The current stage of state formation in Ukraine requires reformation of all aspects of human activity, changes in worldview, consciousness, relationship to the phenomena of social life. The previous state structure formed the person incapable to active creative life, independent decision-making, new approaches to content, forms and methods of practice. All it concerned also physical education.

Despite the importance of the problem of students' health strengthening, improving their working ability, expansion of body's resistance to adverse conditions, strategic issues of level of students' physical education and physical preparedness are still problematic (S.M. Kanishevskiy, S.P. Kozibrotskiy, O.S. Kuts, B.M. Shyian and others).

In addition, according to numerous scientific data (T.Yu. Krutsevych, S.M. Kanishevskiy, S.A. Savchuk) a persistent deterioration in the health of the population and, in particular, students can be observed in recent times. Against this background, the interest in physical exercises in society has dramatically decreased and at the same time the level of diseases of the musculoskeletal system, the cardiovascular system of young people continues to increase. Having

entered into conflict with the real needs of renewal of society, the system of physical education of youth gave rise to the crisis. Considering the compulsory physical training in all institutions of higher education (Law of Ukraine "On Physical Culture and Sports" (Article 12) and serious problems in maintaining the health of young people in Ukrainian scale (G.L. Apanasenko, M.M.Amosov, T.Yu.Krutsevych, O.S. Kuts and others), one of the key problems is changing of explanatory, illustrative and reproductive types of training in intensive technologies. The central place occupies the modular training system.

Objective of the study is to examine the state of physical preparedness of students of higher education institutions as a precondition for modular training.

The results of the study. The level of physical preparedness was determined by the results of development of physical qualities in accordance with regulatory requirements developed in higher education. On the basis of the analysis results, which included 100-meter run, 1500-meter run, 3000-meter run, flexion and unbending of hands in lying support, angle body from a seated position, hip pull-over on the crossbar, sit-up, pull-ups on a crossbeam, standing long jump, running broad jump, shuttle run 4x9 m (table 1).

Table 1

The results of physical preparedness of students of the control group

Control standard	The control group (n=102) M±m	The experimental group (n=102) M±m
Running 100 m (s)	14,45±0,26	14,08±0,26
Running 1500 m (min., s)	5,59±1,05	6,01±3,43
Running 3000 m (min., s)	14,13±3,30	14,14±3,81
Flexion and unbending of hands in lying support (number of times)	37,24±1,90	38,88±1,9
Angle body from a seated position (cm)	11,90±1,97	11,67±1,9

Hip pull-over on the crossbar (<i>number of times</i>)	4,15±1,73	4,24±1,6
Sit-up (<i>number of times</i>)	43,54±1,93	45,7±1,03
Pull-ups on a crossbeam (<i>number of times</i>)	9,44±1,64	10,18±1,48
Standing long jump (<i>cm</i>)	215,8±2,02	216,1±2,42
Running broad jump (<i>cm</i>)	419,1±3,19	418,1±2,08
Shuttle run 4x9 M (<i>s</i>)	9,73±0,16	9,83±0,35

It was established that at the initial stage of training the physical preparedness of control and experimental groups of university students is low. In addition, between the experimental and control group the level of physical preparedness has not revealed dramatic differences, that gives the opportunity to compare the results in these groups at the end of the pedagogical experiment.

Comparison of physical preparedness level of the experimental and control groups (table 1) showed that almost all standards (100-meter run, 3000-meter run) angle body from a seated position, sit-up, pull-ups on a crossbeam, standing long jump, running broad jump, shuttle run 4x9 m) the indexes of physical preparedness of students in both groups are located primarily at a low and medium level. This shows a low level of physical preparedness of students.

The only exceptions are standards with running 1500 m, flexion and unbending of hands in lying support, hip pull-over on the crossbar. Students showed high rates of physical preparedness by these standards. So, 39.1% of students have a low level of physical preparedness, 39.1% of students physical preparedness is average, and only 21.8% of students have a high level of physical preparedness (table 2).

Table 2

**Determining the level of physical preparedness of students
before beginning the experimental study, %**

Level of physical preparedness	Total students (n=207)		The experimental group (n ₁ =105)		The control group (n ₂ =102)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
high	44	21,8	20	19,0	24	23,5
average	81	39,1	44	41,9	37	36,3
low	81	39,1	41	39,1	40	39,2

This indicates the need for modification of the system of methods, forms and means of students' physical culture teaching for improving the level of physical preparation and revision of program content.

Discussion. The most popular question in the works devoted to the study of improving the efficiency of students' educational process is the means and methods of improving their level of general physical training [3; 4; 6]. These questions were thoroughly investigated. The authors have developed comprehensive pedagogical impacts during physical training lessons using elements of athletics, gymnastics, weightlifting and swimming.

A wide range of influence of means of general physical training on student's body within the training group generally does not give the opportunity to develop "lagging" physical qualities purposefully and effectively, to carry out a correction of motor skills of each student during the PT-lessons in the training group [5; 10]. At the same time, the efficiency of operational control of training means of general physical preparation is rather difficult because of the latitude range of effects on the body. This situation leads to search for new, student-oriented teaching methods of physical training, in which students' interests

would be taken into account. The methodology of modular training takes into account the above listed requirements.

The methodology of modular training should include the purpose, objectives, principles, teaching aids (exercise, games, hygiene factors, health forces of nature) training, teaching methods (well-regulated, partially regulated, gaming, competitive, methods of word, visual methods), forms of training (training classes, morning hygienic gymnastics, independent study), results of educational activity, pedagogical control and correction of the educational process. It must be based on the following key provisions: individualization of means and methods of training, increasing volume and intensity of training lessons, accented development of motor skills and on the basis of their motor skills and interest in physical culture. The methodology eliminates the excessive detail, revealing the space for creativity of the teacher, increases the role of complex problem solving.

Considering the methodology and organization of educational process on physical training such points should be noted: the possibility to change the management of training team within one lesson or cycle operatively (weekly, monthly, semester) in general; the ability to control the degree of influence of physical activities for students of a whole training group with the help organizing the complexes of physical exercises in a special manner; intensity of performance of these exercises and rest intervals between them.

Conclusions. The level of physical preparedness control and experimental groups was determined by the results of development of physical qualities in accordance with regulatory requirements, developed in higher education. On the basis of the analysis results, which included running of 100 m, run 1500 m, run 3000 m, flexion and unbending of hands in lying support, angle body from a seated position, hip pull-over on the crossbar, sit-up, pull-ups on a crossbeam, standing long jump, running broad jump, shuttle run 4x9 m established that the physical preparedness of students corresponds to the low level of development

and is at a low and medium level. 42.9% of students have low level of physical preparedness, 36% of students physical preparedness is at a satisfactory level, and only 21.1% of students have a “high” level of physical preparedness. It means the need for modification of the system of methods, forms and means of teaching physical culture of students for improving the level of fitness.

Prospects for further research. Further research is seen in the improvement of modular training of physical culture of students of higher educational institutions.

Sources and Literature

1. Amosov M. M. Thinking about Health. – K.: Health, 1990. – 168 p.
2. Apanasenko G. L. Medical valeology / G.L. Apanasenko, L.A. Popova. – K.: Health, 1998. – 246 p.
3. Bubka S.N. Formation of individual abilities in physical education: Author. Thesis abstract ... Cand. Sc. (Physical Education and Sports.), 13.00.07 / National Pedagogical University named after M.P. Dragomanov. – K., 2001. – 15 p.
4. Vydrin V. M. Theory of physical culture (cultural aspect): proc. manual. – Leningrad : GDOIFK named after P.F. Lesgaft, 1988. – 45 p.
5. Vilenskyi M.Yu. Pedagogical relations in the theory and practice of physical education of students // Theory and practice of physical culture. – 1988. – no. 8. – p. 9.
6. Vovk V.M. Socio-pedagogical problems of continuity of secondary and higher education in the context of lifelong physical education // Theory and practice of physical education. – 1993. – no. 9–10. – pp. 13–15.
7. Kanishevskiy S.M. Scientific-methodical and organizational bases of physical self-improvement of students. – K. : IZMN, 1999. – 70 p.

8. Kozibrotskyi S.P. Software and normative foundations of physical education students (historical-methodological analysis) : Author. Thesis abstract ... Cand. Sc. (Physical Ex. and Sports), 24.00.02. – L., 2002. – 16 p.
9. Krutsevych T.Yu. Evaluation as one of the factors to increase motivation of students to physical activity // Physical education in school. – 1999. – no 1. – pp. 47– 50.
10. Kutz A.S. The experience of sports and recreation activities with young students in foreign countries : monograph. – Vinnitsa, 1986. – Vol. 2. – pp. 214–464.
11. Savchuk S.A. Correction of the physical condition of students of technical specialties in physical education : Author. Thesis abstract ... Cand. Sc. (Physical Ex. and Sports), 24.00.02. – Rivne, 2002. – 18 p.
12. Shyian B.M. Theory of physical education / Shyian B.M., Papusha V.G. – T.: Zbruch, 2000. – 183 p.