

УДК 373.091.214:796-056.2 (045)

*Shkola O. M., Osiptsov A. V., Tuzov Ye. Yu.***CONCEPTUAL BASIC PRINCIPLES OF THE ORGANIZATION
OF LESSONS WITH THE STUDENTS OF THE SPECIAL MEDICAL GROUPS
IN GENERAL EDUCATIONAL ESTABLISHMENTS**

Purpose: to study on the theoretical level the status of organizing problems and giving training lessons of physical education to the students of the general educational establishments who are in special medical groups of health problems and to develop a conceptual principles of the organization of this work. Results: It was found that one and the same curriculum is offered for students of special medical groups and healthy children in the process of physical training. This reduces the student academic load. Physical exercises performed simple. And their choices are amenable to empirical nature. The same system of monitoring and evaluation for the implementation of these exercises is missing. Conclusions: On the basis of analysis of modern approaches to training of special medical groups students taking into account biomedical and didactic aspects it was determined the leading features of each stage of training, specified the main goals and objectives of the educational process, grounded different types of physical activity of students based on the diagnosis of disease and of different ages students' needs, systemized the assessment of students educational achievements.

Key words: *conceptual framework, functions of education, special medical group, training program, goals, objectives, training module.*

The issue of improving students' health level raising in official documents regulated the activities of the general educational establishments (Iermakov S. et al, 2013; Leifa A. et al, 2017; Nikitenko A. et al, 2013; Saienko V., 2016) and in many publications of both native (Ivanova L., 2012; Shepelenko T., Kozina Z. et al, 2017) and foreign scholars and educators practitioners. Statistics indicate the tendency of the constant students' health deterioration, the level of physical development and physical fitness. According to data of the Institute of hygiene and medical ecology name after A. M. Marzeyeva NAMS of Ukraine, for the last 10 years medical problem among school-aged children has risen to 26.8 %. In the first forms there are up to 30 % of children who have chronic diseases, in the 5th forms the number of such children is 50 %, in the 9th and 10th – to 64 %.

Doctor of medical sciences Apanasenko H. (2013) says that even the examination of narrow specialists, functional diagnostics, taking away a lot of time, do not give objective results about the health, but only give some information about the disease. And he continues: "the majority of Ukrainian children has chronic disease or functional disorders" [1]. Such children are not able to visit physical education lessons with healthy students. Scientists came to such decision in the 70s of the last century. Therefore, since that period it was provided additional training exercise with students attributed to a special medical group of health reasons in the schools. They are additional to the basic physical education lessons. This is due to the fact that the children of these medical groups must attend physical education lessons and do available for them physical exercises. The issue that weakened children must train more than healthy (during the lessons and in special medical groups) had been arisen. In this regard, Bulych E. notes that the body of students enlisted to special medical groups, requires physical activity, and often more than the body of healthy students.

There are various statistics of the number of such children in general education schools and according to different authors, these data vary from 3 % to 15 %. Analysis of many publications and analytical information of different levels (Iermakov S. et al, 2013; Sutula V. et al, 2009) indicates that the organization of training with such children in general education schools is carried out at a satisfactory level at best. Specialists find out the main shortcomings of the organization and realization of work with unhealthy children: the lack of study of the theoretical argumentation of conceptual bases of the work organization of the special medical groups; the lack of scientifically grounded training programs; the low level of the professional teachers training on organizing and conducting training activities with students of the special medical groups; insufficient facilities and resources of training lessons; cooperation in the participation of medical personnel in the organization of lessons and monitoring their quality.

To form scientifically grounded conceptual bases of the training lessons organization with pupils of the special medical groups, it is necessary to consider leading contradictions, which are considered as motivation in solving this problem. These contradictions are:

1) the contradiction between the tasks of the humanization of education, which requires treatment to the individuality of student taking into account his physical and mental capabilities, individual needs and inclinations, and the real practice of teaching that is not responsible for the holistic formation of personality;

2) the contradiction between the aims and tasks that are declared by curriculum for special medical groups and the new approaches to their definition and formulation inclusive of work with unhealthy children (most of the aims and objectives have unclear, too generalized character);

3) the contradiction between the content of educational material that is offered in existing programs and features of the reaction of the main functional systems of organism of students with different diagnoses of digestion;

4) the contradiction between traditional methods and organizational forms of giving training lessons and the requirements of the differentiated and individual approaches taking into account the age, sex and the peculiarities of students disease;

5) the contradiction between the existing system of evaluation of educational achievements of students and the level of physical and mental capabilities of students with a different diagnosis and experience of physical activity;

6) the contradiction between the need to carry out continuous monitoring of the health of the students during training lessons and possibilities of facilities and resources of such control in the conditions of modern general educational establishments.

The contradictions, listed above, identified the subject of our research, "Conceptual basic principles of the organization of lessons with the students of the special medical groups in general educational establishments".

Connection of the work with scientific programs, plans, themes. The work is carried out in accordance with the research work carried out for extra budgetary funds for 2018-2020 years "Healthcare and recreation technologies in the field of physical culture and sports".

The aim of the research is to study on the theoretical level the status of problems of organization and conducting of training lessons of physical education to the students of the general educational establishments who are in special medical groups because of health problems and to develop conceptual principles of the organization of this work.

According to the purpose such **leading tasks** are specified:

1. To substantiate the functions, objectives and tasks of physical education of special medical groups students in various stages of training.

2. To explore the basic theoretical and methodological approaches to the development of the content of educational material for special medical groups students.

3. To identify the main ways and the components of the evaluation of educational achievements of special medical groups students.

Participants. The experiment involved the participation in the research of students of primary, secondary and high forms of general educational establishments of the city, who are in special medical groups over health problems. All participants of the experiment gave informed consent to participate in the research.

Procedure. According to the research aim the comparative experiment was organized. Students of primary, secondary and high forms of general educational establishments took part in this research. They had different curricula for physical education. During the year the existing curriculum of physical education: traditional program of physical education, as well as a program for special medical groups in general educational establishments were analysed. The features of these programs were identified, on the basis of which the conceptual framework of the new curriculum of physical education for students of special medical groups was created.

The reaction of the organism of the special medical groups' students on physical activity during the experiment was assessed on the basis of surveys and pedagogical observations.

Statistical analysis. Materials processing of the research were carried out on the basis of the key methods of mathematical statistics: theoretical analysis and synthesis of scientific and methodical literature, pedagogical observations, pedagogical testing, and systematization of scientific research in the field of medical physical culture.

The quality of the organization of any activities depends on the scientifically substantiated determination of its aims. The main objectives of the educational program for special medical groups of general schools are:

- to achieve individually constant improvement of health;
- to plan and realise ways of temporary or long-term nature recovery;
- to use and improve the potential students capabilities for inclusion into adult life.

The formation of the next aims has too general, unclear and unimportant character. In our opinion it is necessary to carry out their decomposition. It is possible to do taking into account the degree of teaching characteristics, peculiarities of diagnosis and sex.

Taking into account the degree of training involves the determination of the basic purposes of classes in primary, secondary and high schools. The analysis of scientific research (Dutchak M. et al, 2012; Iermakov S. et al, 2013; Shepelenko T., Kozina Z. et al, 2017; Vaskov Y., 2009) shows that it is possible only at determining the leading features of each degree of studying as the general educational aspect and the aspect of the use of

physical education. With regard to leading functions of physical education of students of general educational establishments (Shepelenko T., Kozina Z. et al, 2017) to the main functions of the organization and giving of training lessons with pupils of the special medical group we include: for the first degree of education – diagnostic and predictive aim, which involves defining the features of the reaction of the main functional systems of pupils organism on the available physical exercise of different orientation (speed, power, coordination, etc.) and physical exercise (tempo, rhythm, loop, etc.); the formation of a "school" of movements by the use of physical exercises of the invariant and variable parts of the curriculum (gymnastics, dance exercises, outdoor games, athletics, sports, etc.) and the necessary theoretical knowledge about the practical use of physical education to strengthen health; recreation purpose, aimed at correcting certain abnormalities in the students' health status using special exercises of medical physical education and the formation of students' abilities to recover by exercises on relaxation and various ways of breathing, etc.

For the second degree of education the following functions are identified: the forming of the principles of physical, mental and biological health based on the mastery of a variety of physical exercises and motor actions with the use of the content of the curriculum (gymnastics, aerobics, sports, swimming, etc.) and affordable sports equipment (equipment and items, etc.); estimate-reflective aim, which involves the formation of student ability to use means of physical education consciously and deliberately and to control over the mastering of educational material, to identify shortcomings in this process and to organize its own independent activity to eliminate them, to react to changes in the activity of the main functional systems during different exercise, etc.

On the basis of implementing features at the first and second stages, the main functions of the third level of education should be considered as: planning-predictive aim, which involves the forming of students own programs of physical development and improvement while using complex means of physical education; operation and monitoring – the reference implementation to organize independent activities and control during their giving for the dynamics of changes of personal health.

The determination of the leading features on each degree of studying allows specifying the main goals and tasks for students at 1-4, 5-9, 10-11 forms. In our study we cover the educational tasks and for each degree we include the following: recovery of dysfunctions; compensation for lost functions in the course of certain diseases. The determination and specifying of educational and developmental tasks for the classes of special medical groups students require particular research and on this issue we are not going to stop.

Primary school

1. Researching of the reaction of the students' organism on the available physical activity by means of the measurement of the heart rate and blood pressure.

2. Studying with students the basic methods of physical activity: school culture movements with elements of gymnastics; school of movement; school of ball; school of jumps; school of recreation; school of development of physical qualities; school of posture).

3. Formation of theoretical knowledge about the value of physical education in the healing of the body as well as personal hygiene, training and a healthy lifestyle, the impact of exercise, learnt on the basic functional systems of organism.

4. Developing of basic motor abilities according to the sensitive periods of primary school aged students.

5. Equipping students with skills "listen to" your own body when performing a variety of exercises and to adjust the tension, the pace and the rhythm of the performance, to self-control.

6. Continuously to carry out operative and current control for the development of basic motor skills and for reaction of students organism to a variety of physical activity.

7. To use complex system of evaluation of students' educational achievements during the lessons.

Secondary school

1. Formation of common beliefs about physical culture and its components, their role and significance in maintaining and enhancing the health and physical development.

2. Equipping students with practical skills and the skills of the invariant and variable parts of the program with the aim of expanding their motor experience and acquaintance with their influence on the activities of the main functional systems of organism.

3. Development of basic motor abilities according to the sensitive periods of middle-school aged students.

4. Equipping students with the means of control and self-control of the quality performance of physical exercises, complexes and combinations with invariant and variable parts of the curriculum.

5. Increasing of the level of theoretical and methodological knowledge in the evaluation of the reaction of the organism to various exercises (combination, complexes, etc.) and to the physical exercises on the lesson (separately for pupils with a different diagnosis of the disease).

6. The formation of practical skills for independent physical activities and having active rest.

High school

1. Equipping students with skills to form their own program of physical development and improvement based on the obtained theoretical knowledge, movement experience of previous educational activity and changes of physical health, which took place in the previous forms.

2. Formation of motor abilities and skills provided by the curriculum for students of 10-11 forms of special medical group.

3. Improving of theoretical knowledge for the determination of effective means of countering the principal types of the disease, which referred to a diagnosis of medical workers.

4. Equipping students with theoretical knowledge and methodological skills to conduct tests to determine the activity of the main functional systems of organism.

The main tasks of education in practical activity of a teacher are defined for a single class and lesson. It is carried out taking into account the features of contingent, a variety of diseases of students, facilities and resources, specific training material.

Training organization of the special medical group students provides as generally educational and specific (inherent in working with unhealthy children) principles. To such one we attribute: the principle of a systematic tracking of the status of health of students and the reaction of the functional systems of organism to physical activity; the principle of alternation of the available exercises and various forms of recreation; the principle of a gradual forming of the pedagogical influence of the intellectual and practical nature; the principle of cyclic system lesson organisation, the principle of complex using of means of teaching, the principle of differentiation and individualization of the pedagogical impact, etc.

The quality of the lessons organization in special medical groups depends also on the selection of the optimal content of educational material taking into account the requirements of the program, facilities and resources, the peculiarities of the diagnosis of the disease, sex of students, etc. As already noted, the authors of modern programs (Iermakov S. et al, 2013; Shepelenko T., Kozina Z. et al, 2017; Sutula V. et al, 2009; Ivanova L., 2012 et al.; Vaskov Y., 2009) have incorporated the same sections (modules), into the program aimed at practically healthy children. In our opinion the content of educational material for children of special medical groups needs to be expanded.

Thus, the organization of the special medical group students includes both overall and specific didactic (inherent in working with sick children) principles. The general didactic principle include the systematic tracking of the status of pupils' well-being and the reaction of the functional systems of an organism on physical activity; a transfer load available and various forms of recreation; the principle of a gradual build-up of the pedagogical influence of the intellectual and practical nature; the principle of circular system design principle of complexity classes using training tools, the principle of differentiation and individualization of the pedagogical impact and others. The main specific principles are underlying physical exercise, and the use of hardening by the students who for health reasons relate to special medical group, the following should be considered.

The first principle is recreational, therapeutic and preventative use of means of physical education depending on nosology. Any physical exercises and sports take place in accordance with the installation of sports movement which is wellness oriented. For students of the special medical groups this principle is the main. Selecting means of physical training goes through all the steps of the methodology and organization of classes. The importance of this principle is explained by the much larger amount of health challenges when working with students of special medical groups.

The second principle of physical education of the students in special medical groups is the differential use of physical culture, depending on the nature and availability of structural and functional abnormalities in the body caused by a pathological process. Any load physical exercises differentiates depending on age, sex and physical fitness. In addition in a special medical unit, determinant of quantitative and qualitative features of physical exertion and the possibility of hardening becomes a disease that characterizes the uniqueness of the organism. These features require individual means and methods of physical education for each student.

The third principle, which must comply with in the process of physical education of students in a special medical groups is professionally applied possessions.

Carrying out physical education classes with students of special medical groups, who had previously suffered from the disease, a teacher must not only ensure the prompt resumption of the damaged organs and systems, but to help the student in the process of training exercise a certain purchase necessary for mastering the profession of motor skills. To teach them using the methods of physical training, to smarten up the central nervous system and other body systems, to ensure them the ability to provide high availability for the future specialist. If we take into account that after the disease there is often significant breach in the body that makes it difficult to adapt to conditions of physical stress, it becomes apparent the complexity of implementing this principle.

In our opinion, the content of educational material for children of special medical groups needs to be expanded. A large block of exercises must be associated with exercise locomotors nature (variety of walking and jogging, skiing, swimming, etc.). Exercises on choreography, aerobics, rhythmic gymnastics, and dances can be used. In some cases, elements of aerobics and stretching can be done. Important parts of each lesson are mobile and sports games of various kinds, and be sure the exercises that form the ability to breathe properly are included.

Therefore, on the basis of these principles, depending on the type of illness you should exercise subject to certain methodological provisions:

- Cardiovascular-breathe ratio, 1:2 1:3 (under inhale and exhale);
- Respiratory – 3:1 ratio, 2:1;
- Metabolic-paced exercise moderate load on large muscle groups, weight training;
- Internal organs (stomach, liver, kidneys) – limited jumping. Basic assumptions-lying on your back and sitting;
- Reduced vision-exercises related to the shaking of the body.

Certainly gymnastics elements should become the main component of each physical lesson. They include the general development exercises with various subjects and without them, the special equipment (walls, benches, bars, etc.), special exercises for students with various diseases and the level of physical fitness, exercise of improving character and aimed at the prevention of posture dysfunction and flatfoot. It is impossible to solve the problem of selection the content of educational material within the article, this issue deserves separate study. But as the recommendations to authors of a new program it is necessary to denote certain precautions in the study of individual sections of the program in the contents.

The problem of teaching methods usage requires revision. It contains classification and functional content. In our opinion, it is necessary to pay attention of the specialists to the usage of those methods already theoretically grounded in general education, the classification of methods by Lerner I. (explicative-illustrative, reproductive, problem, partially-search, research), or by Babanskyi Y. (organization and implementation of educational and cognitive activities, stimulation and motivation, control and self-control). It is also necessary to use specific methods of teaching of medical physical education.

Based on differentiated and individual approaches it is necessary to apply widely to the group, paired form of educational activity organisation. The use of varieties of such forms as circle training using justified equipment and specific content of the training material for each group of students is practically effective.

A significant problem for the activities of special medical group in general educational establishments is the estimation of academic achievements of students. It is not drawn up distinct criteria for special medical groups, but focusing on the general pedagogical approaches it is essential to estimate children activity by three components: the theoretical knowledge, technique performance of exercises and combinations of exercises, positive growth in the basic functional systems of organism. The last factor should be defined with the help of the available functional tests.

Conclusions. Conducted theoretical research on program-methodical support and State training sessions with students of special medical groups allows us to make the following main conclusions:

- 1) only on the basis of identified inconsistencies in the organization of the work of the special medical groups and conceptualization the functions of educational process with students of different levels of studying it is possible to specify basic and derived objectives of students' teaching;
- 2) content of learning material for special medical groups must be given selectively for classified students in groups a and b; students should be classified in terms of age, gender, diagnosis, disease-specific, physical preparedness and core functional body systems' response at various loads;
- 3) methods and forms of students' training are to be chosen in common pedagogical approaches;
- 4) evaluation of students' training activities is to be performed on three indicators: level of theoretical knowledge, technique, positive developments in quantitative terms on the activities of the main functional systems.

The prospects of further research are expected to develop the content of the training material for each stage of the evaluation system of educating pupils and educational achievements of students in special medical groups.

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КОНЦЕПТУАЛЬНІ ОСНОВИ СТВОРЕННЯ НАВЧАЛЬНОЇ ПРОГРАМИ З ФІЗИЧНОЇ КУЛЬТУРИ ДЛЯ СПЕЦІАЛЬНИХ МЕДИЧНИХ ГРУП ЗАГАЛЬНООСВІТНІХ НАВЧАЛЬНИХ ЗАКЛАДІВ

Мета: вивчити стан проблеми та розглянути нові підходи до організації навчальної роботи з учнями спеціальної медичної групи у середніх класах. За останні десять років захворюваність серед дітей шкільного віку зростає майже на 30 %. Такі діти не можуть займатися на уроках фізичної культури разом із здоровими учнями. Метою дослідження є виявлення основних протиріч у вирішенні та обґрунтуванні провідних особливостей учнів спеціальної медичної групи в початкових, середніх та старших класах; розробка кожного етапу навчання; вибір основних модулів змісту навчального матеріалу. Матеріал: дослідження аналізує підходи різних авторів у створенні навчальних програм для учнів, які за станом здоров'я віднесені до медичних груп. Повинна бути чітка організація додаткових занять з такими дітьми, які теж будуть відвідувати заняття фізичної культури і виконувати доступні для них фізичні вправи. Основна увага приділятиметься невирішеним питанням у матеріально-технічному та соціальному аспектах. Результати: було встановлено, що вибір змісту навчального матеріалу для спеціальних медичних груп є емпіричним за своєю природою, а скоріше копіює існуючу навчальну програму з фізичної культури для здорових дітей, що свідчить про зниження навантаження на них та виключення складних елементів. Організація навчання учнів спеціальної медичної групи передбачає урахування загальнодидактичних і специфічних принципів, а її якість залежить від добору оптимального змісту навчального матеріалу з урахуванням вимог програми, матеріально-технічного забезпечення, особливостей діагнозу захворювання та статі учнів. Певного перегляду потребує також проблема використання методів навчання. Немає чіткої системи оцінювання навчальних досягнень учнів. Висновки: на підставі аналізу сучасних підходів до навчання учнів спеціальної медичної групи визначаються провідні особливості кожного етапу навчання, визначені основні цілі та завдання освітнього процесу, обґрунтовані різні типи рухової активності учнів на основі діагностики захворювань та їх потреб в період розвитку, систематизовано оцінювання навчальних досягнень учнів.

Ключові слова: концептуальна основа, освіта, учні, спеціальна медична група, навчальна програма, модуль програми.

Стаття надійшла до редакції 07.02.2018 р.