



# Complex forms of education for students of a special medical group in the elective discipline «Physical culture and sports»

UDC 376.1; 378.147



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Received by the editorial office on 20.12.2023

## Abstract

**Objective of the study** was to determine the effectiveness of various forms of training in educational programs for students of a special medical group during practical classes in physical education.

**Methods and structure of the study.** 171 students of special medical group "A" took part in the experiment. A pedagogical experiment on the implementation of educational programs using electronic educational technologies was carried out on the basis of Altai State University in the period from 2018 to 2020.

**Results and conclusions.** Based on the results of the survey, the effectiveness of the educational program was proven, which included the traditional (contact work) form of education and the use of electronic educational technologies (electronic course), in order to increase awareness, interest and desire to increase one's physical activity and engage in physical education. The need to expand the educational program for students with health problems is outlined, expressed in the introduction of theoretical and educational materials that can be implemented through electronic educational technologies. Conclusion. The inclusion of the proposed classes in the curriculum of elective disciplines "Physical Culture and Sports" for students with health problems allows you to increase the quality of knowledge and skills necessary for the implementation of physical activity with individual consideration of diseases, as well as independently select physical exercises and their dosage for organizing independent exercises in order to stabilize existing health deviations, exercise self-control and psychomotor development, and increase motivation for exercise.

**Keywords:** *physical activity, special medical group, diseases, blended learning, efficiency, motivation.*

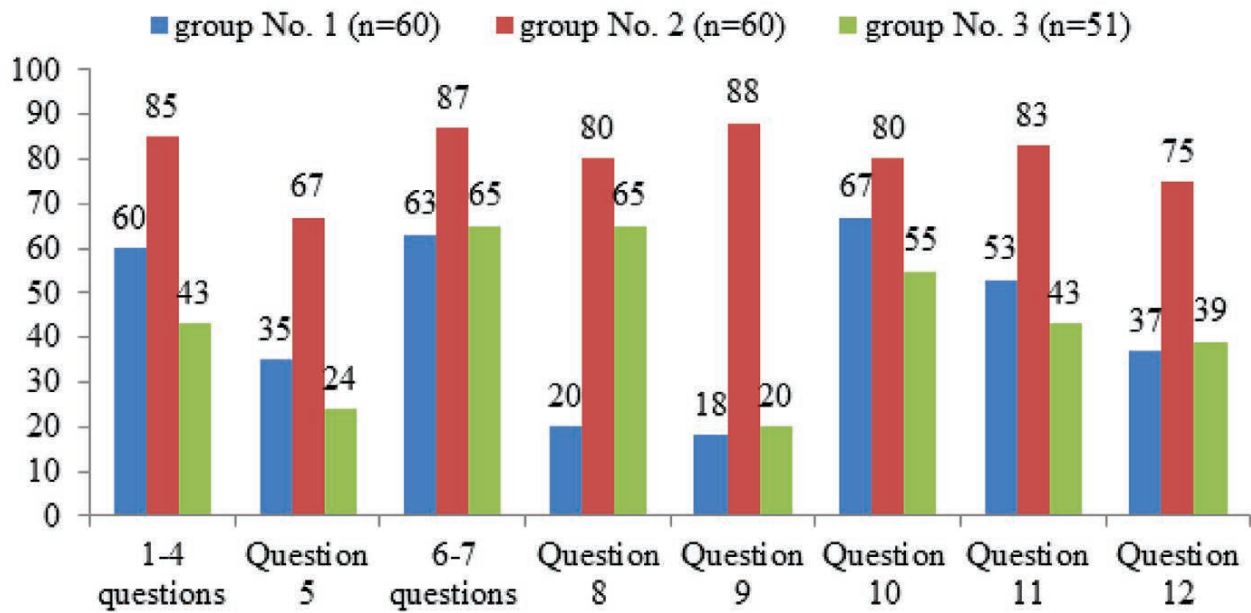
**Introduction.** There is sufficient evidence to make informed judgments about the beneficial effects of physical activity on the normalization and stabilization of physical health, as well as self-esteem, symptoms of anxiety, depression, stress tolerance [1, 5] and brain activity [6]. At the same time, students, as representatives of the younger generation, poorly understand and are not aware of the impact of systematic physical activity on a person's psychological health [4].

The majority of students with a history of diseases of varying severity, as a rule, did not engage in physical education while studying at school and were most often exempted from practical physical activity for various reasons [3]. Most of them do not understand what they can do with a diagnosis and

how it will positively affect their health. Having entered the university, such students already have a formed belief that any physical activity is contraindicated for them.

Forming motivation for physical education and sports is possible with adapted training and increasing students' physical education in practical issues of application in everyday and professional activities [2, 7]. Students who participate in the practical assessment process in a purposeful and structured manner are more capable of learning and are more involved in the learning process, which in turn increases the value of the training process [8].

**Objective of the study** was to determine the effectiveness of various forms of training in educational



Positive answers in the survey of students of the special medical group (n=171), %

programs for students of a special medical group during practical classes in physical education.

**Methods and structure of the study.** The study was conducted from 2018 to 2020. After an annual medical examination of first-year students at Altai State University (Barnaul), three groups of students were formed, assigned for health reasons to a special medical group “A”, with pronounced deviations in health (Table 1).

Students of groups 2 and 3 studied according to training programs developed by us using electronic educational technologies (electronic course).

The standard form of training included contact work in practical classes at the university’s sports facilities and independent studies. The program included the following sections: athletics, basketball, badminton, volleyball, aerobics, general physical training and preventive exercises. All physical activity in classes is formed taking into account the characteristics of the

student population, excluding such types of activities as long-distance running, somersaults, jumping, exercises with holding the breath and straining, etc.

The mixed form of education included an educational program developed by us and implemented since 2015, it took into account sections of the standard form of education and included the replacement of some training hours with the study of theoretical and methodological and practical material using electronic educational technologies (electronic course) with consultation and subsequent monitoring of completed tasks during contact work. Students had the opportunity to learn independently, create individual sets of physical exercises taking into account the disease, and acquired self-control skills not only when performing physical exercises in practical classes, but also in various life situations, including in the conditions of future professional activity [3].

Table 1. Formation of groups for the study (n=171)

Group No.	Year of admission to the university	Form of study		Number of students
		1st semester	2nd semester	
1	2018	Standard	Standard	60
2	2018	Mixed	Mixed	60
3	2019	Standard	Distance	51



Table 2. Student survey questions

Question No.	Survey question
1	I take care of my physical health
2	I understand the value of physical activity
3	I believe that physical education is an effective non-drug means for maintaining and improving health
4	I regularly use physical education to maintain and strengthen my own health (more than 3 times a week)
5	Do you motivate yourself to exercise?
6	I know the signs of fatigue in physical education and sports classes
7	I have basic knowledge of the structure, functions and diseases of human organ systems
8	I conscientiously and regularly keep a self-control diary.
9	I can find the exact wording of the diagnosis(es) by disease code
10	I know methods for assessing the physical development and functional state of the body
11	I can independently determine which exercises are recommended and which are contraindicated for my diagnosis(es)
12	I am able to regulate and adjust physical exercises in accordance with my diagnosis(es)

Distance learning was used in 2020 during the period of restrictions (COVID-19). The program included materials on sections of the standard form of education using electronic educational technologies (electronic course). Additionally, the training program was equipped with video exercise lessons for the preparatory part, sets of exercises for the development of strength abilities, strength endurance and flexibility, as well as preventive sets of exercises.

At the end of the academic year, a survey was conducted to identify the level of acquired knowledge, skills and abilities in the discipline, as well as the level of motivation for practical exercises in physical education.

For each question, answer options were proposed: 4 – the statement is completely true; 3 – more likely to correspond than not; 2 – both yes and no; 1 – rather does not correspond than corresponds; 0 – the statement is completely untrue.

**Results of the study and discussion.** After conducting the survey, all results were processed and presented in the arithmetic mean (see figure).

An analysis of the results of a survey of students studying in different programs and forms of education showed that students who studied in an experimental educational program in a mixed form of education learned the program material to a greater extent, and there was also an increase in consciousness and motivation for classes. This physical education program

promotes a gentler adaptation of students to regular, accessible physical activity. The training program we presented includes self-assessment of objective and subjective indicators during practical physical education classes.

Various theoretical, methodological and practical materials filling the program of a mixed form of education contribute to expanding the knowledge and skills of students in the field of using physical education means to increase the level of physical fitness, to preserve and strengthen the health of students. First of all, it is necessary to motivate people to exercise by explaining the importance and positive impact of physical education on functional and physical fitness. Motivation for exercise will increase not only due to the emotional and social component of the exercise, but also due to the visible positive effect on the development of physical qualities, health and performance in general.

**Conclusions.** The use of a mixed form of training program in physical education in the higher education system using electronic educational technologies (electronic course) has a significant impact on increasing the motivational component for physical education among students of a special medical group. Thanks to the inclusion of theoretical material in the discipline program, as well as methodological and practical classes, it increases in students not only the quality of knowledge and skills neces-



sary to carry out physical activity, but also makes it possible to independently select physical exercises, their dosage when organizing independent classes, in order to stabilize, existing deviations in their state of health, exercise self-control and psychomotor development.

The results of our study do not claim to be final, and, moreover, are the basis for further research in this direction.

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