Results Of The Research On The Influence Of The Experimental Program On Rhythmoplasty On The Physical Qualities Of Students

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ABSTRACT

In the article the technique of research on the basics of learning motor actions in rhythmoplasty in higher educational institutions. Possibilities of pedagogical higher education institution in the formation of the motive culture of students by means rhythmoplasty are shown. The approbation of the content of the pilot program on the formation of students by means of motor culture rhythmoplasty. Systematized program material, defined goals, objectives for each year of training and the optimum ratio means the general physical and special training under physical and technical readiness of students.

Keywords: student, teacher, rhythmoplasty, culture, training, means, occupations, movements, health, way of life, working capacity, incidence, form, methods.

Relevance. The political, economic and ideological transformations taking place in the Republic of Kazakhstan cannot but reflected in the sphere of physical education and sports in the republic. In this regard, there was an urgent need to introduce changes in the system of physical education of students, ensuring their versatile education. The republic is actively searching for effective means, forms and methods of training that will significantly improve the quality of education and training of future highly qualified specialists for the national economy.

Thus, in the Concept of the transition of the Republic of Kazakhstan to sustainable development for 2007-2024, it is emphasized that "... the Kazakh nation needs a cardinal solution to the tasks of creating a healthy lifestyle that involves an increase in motor activity and a healthy lifestyle", and in the Address of the President of the Republic Kazakhstan Nursultan Nazarbayev to the people of Kazakhstan "The New Decade - New Economic Growth - New Opportunities of Kazakhstan" issues related to the strengthening, preservation and development of health, as well as the formation of a healthy lifestyle for the whole population [1,2]. The solution of the tasks is connected with the content of education, where the improvement of the culture of movement is a factor that ensures the preservation and enhancement of health, the education of a healthy lifestyle for citizens. The formation of a motor culture, the foundations of a healthy lifestyle for students has a positive impact on health, mental and physical performance, on the results of training and education, on the quality of training future professionals, especially educators. The motor culture of students is essential in their professional and pedagogical training, and it is associated with their health, a healthy lifestyle [2, 11], [3, 9].
In the field of motor culture research, it is necessary to emphasize the work of specialists who defined the theoretical and practical justification for the importance of traditional (sports) and non-traditional gymnastics (rhythmic, aerobic, shaping, yoga, pilates, etc.) [4,185].

The increased attention of both theoreticians and practitioners to this problem is explained by the fact that the role of non-traditional types of gymnastics is increasing as an effective means of physical education for students and, on this basis, increasing the effectiveness of teaching and upbringing.

**Research objective.** Develop ways and experimentally verify the implementation of the formation motor culture of students in rhythmoplasty.

The aims of education are determined by the social order, the system of society's needs. In society, the goal of education in physical education is the transfer of knowledge about the ways, means, methods of physical improvement of a person; the formation of vital motor skills, and on their basis - the skills and habits of managing your body for solving a variety of motor tasks in labor, defense, professional, domestic and sport activities [5, 12], [7,8,9].

**Results of the study and their discussion.**

A female contingent of students took part in the training experiment. There were created 4 study groups of students (2 - experimental - 50 people, 2 control groups, also 50 people). The main task of the experimental work was to solve the tasks of this research and to establish the effectiveness of the developed program: pedagogical methods were developed and introduced into everyday practice, taking into account the individual characteristics of students engaged in rhythmoplasty. The tasks for each period of study were determined, taking into account the time limits for adapting students to the conditions of the higher education institution, the requirements of the program and the orientation to the sports orientation of the teaching and upbringing process.

The results of the studies are analyzed by methods of mathematical statistics. When analyzing the quantitative indicators, the mean values, the coefficient of variation were calculated, and the significance of the relative differences in the results by the Student's criterion was estimated.

Experimental work has shown pedagogical ways of solving the assigned research tasks for the entire period of students' training taking into account the content of the experimental program. In the course of the study, we detected the most frequent illnesses of students. It was found that acute colds are common. They occupy the main place during the training of students in higher educational institutions. And as a rule the greatest number occurs in the winter months. The students are characterized by a weak functional state of the cardiovascular system. Also the most frequent diseases are: chronic tonsillitis, cholecystitis, gastritis, neuroses. Unfortunately, recently, the leading position is a violation of vision.

At the Department of Physical Education and Sport of the Kazakh State Women's Pedagogical University, in collaboration with the student health center of Almaty conducted a medical examination on the state of student health. To this end, annual medical examinations of students and medico-pedagogical control to engage in physical education and sport, which prior to participating in the competition are subject to medical examination.

Studying the results of long-term medical examinations, we first of all proceeded from the fact that the state of health of students, as a rule, correlates with the quantitative composition of the basic, sports, special medical groups and the group of therapeutic physical culture, i.e. especially those from physical education. The main and preparatory groups are healthy students.

Students with chronic illnesses are enrolled in a special medical group. The same is found among students who are exempt from sport.
We found that a significant number of first-year students are practically healthy and after passing a medical examination they are distributed to the main and preparatory groups. The number of students with chronic diseases varies between 3.5-8.0%.

To our regret, in the higher educational institution the preparatory and special medical groups increase every year. Thus, special medical groups of first-year students in the 2014 enrollment made up 4.0%, and by the end of the third year it increased to 9.10%, from 4.64% in 2015 it increased by 4.54%. Accordingly, there is a decrease in the main group: from 83.2% in 2013 to 5.0%, from 75.0% in 2010 to 73.8%.

In the planned pedagogical experiment, the experimental work was carried out exclusively with students on the basis of the Kazakh State Women's Pedagogical University, in the experiment the students of the main medical group took part in 1-3 courses, we proceeded from the experience of the traditional physical education of the previously developed methods of developing the physical and psychomotor qualities of those involved.

Also, the necessary ratio of hours allocated for rhythmoplasty, we clarified in the preliminary study of the state of the issue. At the present time in higher educational institutions of the Republic of Kazakhstan, educational and upbringing classes in physical education organized according to the principle of selected sports specializations. The principle of sporting specialization at this stage of development and establishment of higher educational institutions in the republic is more effective, it contributes to: significant improvement in physical development, physical preparedness based on the standards of the "presidential test", development of physical, psychophysical qualities necessary for the future teacher, sports achievements in the elected non-traditional kind of gymnastics.

Thus far, students of higher educational institutions have a sufficiently high educational (mental) load, systematically feel the lack of time for employment in sports sections.

The training session on rhythmoplasty should be used not only as a training load, but also as an effective means of rest, restoring physical and mental strength after considerable intellectual work in general and profiling academic and scientific disciplines, and also in the successful preparation for the upcoming training sessions.

A scientifically organized and planned activity, with a focus on the impact of training loads on the successful assimilation of other academic disciplines, stimulates the effective physical development of students and helps them optimally build time in the daily routine of the day, optimize it.

To solve the tasks set in the pedagogical experiment the study took in four stages:

**First stage.** The scientific-methodical literature and program documents of higher educational institutions were analyzed. The teachers of higher educational institutions on physical education were asked to study and generalize the work experience and critically evaluate the contents of the program on the discipline "Physical Education".

**Second stage.** Studies were carried out by questioning students of the first and third courses, which allowed us to determine the attitude of students to the discipline of "Physical Education". 520 students took part in the survey. The pedagogical possibility of conducting rhythmoplasty lessons has been established. An experimental program of physical education with the use of rhythmoplasty was developed, where the main task of this stage was the establishment of the necessary number of study hours allocated for mastering the techniques of rhythmoplasty movements.

**Third stage.** A pedagogical experiment was conducted to study the effectiveness of the content of the physical education program in rhythmoplasty. Physical development and physical preparation of students, accepted for 1 course in the dynamics of training, were established. According to the tasks of the work, a pedagogical assessment was made of the physical development, physical readiness, performance of students, and the state of their health. Studied indicators of students 1-3 courses according to the work plan, were filmed at the beginning and at the end of the relevant school years.
In the training experiment, 75 students (3 study groups) participated, training in each group was conducted based on 120 academic hours.

To conduct classes throughout the pedagogical experiment, the conditions were the same for both experimental and control groups. The peculiarity of the proposed program was the use of students of the experimental group for the formation and improvement of physical and psychophysical qualities.

At the first organizational sessions, according to the definition of physical status and identification of students' interests. Students with a desire to engage in rhythmoplasty were identified. Thus, 25 students were selected in turn, before entering the higher educational institution engaged in non-traditional types of gymnastics, including rhythmoplasty, which consisted of two training groups.

Since, great importance for the training process has a role of the development students their motor skills and skills in rhythmoplasty, we were taken into consideration heterochronism.

The physical status of the training groups was determined by the results of a medical examination at the beginning of the academic year, with an analysis of their physical development and physical preparation.

Based on the results of the first survey, students were assigned to medical groups, i.e. they had to be engaged in the curriculum of the main department.

Table 1 shows the dynamics of the physical development of the students EG-1 and EG-2 for the period of experimental work.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Groups</th>
<th>1 course</th>
<th>2 course</th>
<th>R1</th>
<th>3 course</th>
<th>R2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(\bar{X}\pm{m})</td>
<td>(\bar{X}\pm{m})</td>
<td></td>
<td>(\bar{X}\pm{m})</td>
<td></td>
</tr>
<tr>
<td>Height(cm)</td>
<td>EG-1</td>
<td>155,2\pm0,76</td>
<td>156,6\pm0,82</td>
<td>0,05</td>
<td>157,1\pm0,8</td>
<td>0,05</td>
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<tr>
<td></td>
<td>EG-2</td>
<td>155,0\pm0,75</td>
<td>156,6\pm0,68</td>
<td>0,05</td>
<td>157,5\pm0,8</td>
<td>0,05</td>
</tr>
<tr>
<td>Weight(kg)</td>
<td>EG-1</td>
<td>51,5\pm1,06</td>
<td>53,4\pm1,09</td>
<td>0,05</td>
<td>54,4\pm1,01</td>
<td>0,05</td>
</tr>
<tr>
<td></td>
<td>EG-2</td>
<td>51,6\pm0,89</td>
<td>52,0\pm1,03</td>
<td>0,05</td>
<td>51,9\pm1,12</td>
<td>0,05</td>
</tr>
<tr>
<td>OGK (cm)</td>
<td>EG-1</td>
<td>76,1\pm1,08</td>
<td>76,8\pm1,08</td>
<td>0,05</td>
<td>76,9\pm1,06</td>
<td>0,05</td>
</tr>
<tr>
<td></td>
<td>EG-2</td>
<td>76,8\pm1,13</td>
<td>76,0\pm1,17</td>
<td>0,05</td>
<td>76,1\pm0,10</td>
<td>0,05</td>
</tr>
<tr>
<td>EGK(cm)</td>
<td>EG-1</td>
<td>10,9\pm0,49</td>
<td>11,9\pm0,03</td>
<td>0,05</td>
<td>14,0\pm0,16</td>
<td>0,05</td>
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<td></td>
<td>EG-2</td>
<td>10,9\pm0,45</td>
<td>11,2\pm0,32</td>
<td>0,05</td>
<td>14,0\pm0,18</td>
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<tr>
<td>ZHEL( cm³)</td>
<td>EG-1</td>
<td>3126\pm88,6</td>
<td>3360,0\pm88,2</td>
<td>0,05</td>
<td>3754,0\pm0,77</td>
<td>0,05</td>
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<tr>
<td></td>
<td>EG-2</td>
<td>2746\pm101,0</td>
<td>3271,0\pm93,3</td>
<td>0,05</td>
<td>3838,0\pm0,61</td>
<td>0,05</td>
</tr>
<tr>
<td>SPK (kg)</td>
<td>EG-1</td>
<td>32,5\pm0,50</td>
<td>38,4\pm0,63</td>
<td>0,05</td>
<td>39,2\pm0,49</td>
<td>0,05</td>
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<tr>
<td></td>
<td>EG-2</td>
<td>26,5\pm0,49</td>
<td>33,1\pm0,69</td>
<td>0,05</td>
<td>33,2\pm0,77</td>
<td>0,05</td>
</tr>
<tr>
<td>SLK (KG)</td>
<td>EG-1</td>
<td>28,4\pm1,01</td>
<td>27,7\pm0,55</td>
<td>0,05</td>
<td>31,3\pm0,44</td>
<td>0,05</td>
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<tr>
<td></td>
<td>EG-2</td>
<td>23,3\pm0,86</td>
<td>23,3\pm0,39</td>
<td>0,05</td>
<td>32,2\pm0,55</td>
<td>0,05</td>
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<tr>
<td>(\sum)</td>
<td>EG-1</td>
<td>3480,6\pm93,5</td>
<td>3724,8\pm92,23</td>
<td>0,05</td>
<td>4126,9\pm4,73</td>
<td>0,05</td>
</tr>
<tr>
<td></td>
<td>EG-2</td>
<td>3090,1\pm105,6</td>
<td>3623,2\pm97,6</td>
<td>0,05</td>
<td>4202,9\pm4,13</td>
<td>0,05</td>
</tr>
<tr>
<td>(\bar{X})</td>
<td>EG-1</td>
<td>497,2\pm13,4</td>
<td>532,1\pm13,2</td>
<td>0,05</td>
<td>589,5\pm0,67</td>
<td>0,05</td>
</tr>
<tr>
<td></td>
<td>EG-2</td>
<td>441,1\pm15,08</td>
<td>517,6\pm13,9</td>
<td>0,05</td>
<td>600,4\pm0,59</td>
<td>0,05</td>
</tr>
</tbody>
</table>
R1 - significant significance between the initial and final indicators; R2 - significant significance of the final indicators between the groups.

The data of Table 1. can be presented more clearly by means of a histogram.

![Comparative characteristics of the dynamics of physical development of EG-1 and EG-2](image)

Fig. 1 - Comparative characteristics of the dynamics of physical development of EG-1 and EG-2 Note: OGK - the circumference of the chest; EGK - Excursion of the chest; ZHEL - vital capacity of the lungs; SPK - the power of the right hand; SLK - The power of the left hand.

The results of the analysis show the changes that occurred in both experimental groups. In anthropometric data, it is significantly less than in physiometric data. Thus, the vital capacity of the lungs by the end of the first course in EG-1 increased by 238 cm³, and in EG-2 by 258 cm³, and by the end of the third course in EG-1, the increase was 394 cm³, in EG-2 - 567 cm³. The power of the right hand of the students of EG-1 by the end of the third year increased by 5.7 kg, and in EG-2 by 6.7 kg, the left hand force in EG-1 by 5.8, and in EG-2 - by 5.9 kg.

Dynamics in the indicators of physical development made it possible to conclude that the dynamics of the results in most numbers is higher in EG-2 than in EG-1.

Comparing the dynamics of the physical development of the students of the experimental group with the control group, it should be emphasized that positive shifts were found in the experimental tests in both experimental groups. At the same time, the increase, especially in physiometric indicators, is much higher in the experimental group: the vital capacity of the lungs for three years of training in the experimental group increased by 660 cm³, and in the CG by 217 cm³, the increase in the strength of the right hand in the EG is 6.8 kg, and KG - 5.8 kg, in the force of the left hand in the EG - 6.9, and KG - 5.6 kg.

**CONCLUSION**

The results of the conducted study convince us of the expediency and scientific consistency and use of rhythmoplasty in the formation of the motor culture of students.

Increasing the effectiveness of physical education in a pedagogical university should be carried out by a set of methods and means, including improving the material base, increasing the number of compulsory classes, providing a free choice of the type of motor activity, etc.

Free choice by students of the sport (in our case - rhythmoplasty) significantly increases the mental and physical activity of students in physical education classes, contributes to the increase in attendance, achievement and interest in physical education and healthy lifestyle.

Practical use of this pedagogical influence on students predetermined the receipt of uninteresting results. training focused on the fulfillment of the main tasks of research: the creation of a pedagogical
basis for physical development and physical fitness in accordance with the tasks assigned; improving the knowledge, skills and skills in rhythmoplasty by developing physical qualities, increasing the overall mental and physical performance and surrendering regulatory requirements, improving technical actions in rhythmoplasty with the development of the necessary physical qualities and achieving high results in the chosen form of gymnastics.

Thus, we came to the conviction that the use of rhythmoplasty in high school practice proves the need for it in raising the physical, mental, psychomotor and other qualities, in the solution of the harmonization of students.

REFERENCES


