



Pedagogical technology of the use of physical and recreational tools in the conditions of acquisition by students of the elective course

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Abstract

Objective of the study was to reveal the effectiveness of the use of physical and recreational tools in the conditions of students acquisition of the elective course.

Methods and structure of the study. The experiment was conducted on the basis of Tomsk State University with the participation of students of the basic and preparatory medical groups who chose the elective course «Ushu». The training methodology includes the study of basic techniques, mastering the tao complexes «18 Forms of Changquan» and «32 Forms of Changquan». Sociological methods were used in the study: questionnaires and testing of functional and psychological tests for monitoring the functional state of students (coefficient of endurance, level of physical condition, Ruffier-Dixon test, etc.).

Results and conclusions. This activity based on the developed pedagogical technology allowed students to get acquainted with a new type of physical activity, to increase the level of physical health. The results of the study confirm the effectiveness of this application in the system of physical education of students in the university as an elective discipline, contribute not only to the improvement of physical training, but also to the development of important personal qualities, the formation of a healthy lifestyle and the improvement of the general quality of life of student youth. The revealed main motive for choosing this occupation is interest in Chinese culture, desire to improve physical form, self-defense skills, desire for self-development and harmonization of personality.

Keywords: *students, this at the university, eastern martial arts, student health, healthy lifestyle, physical culture.*

Introduction. Modern society is characterized by a high level of intellectual stress, especially among students. The educational process, sessions, exams, scientific activities require significant expenditure of energy and concentration, which leads to a deterioration in the physical and psycho-emotional state of students. Physical inactivity, stress, sleep disturbances, decreased immunity are just some of the consequences of insufficient physical activity, which have been noted by a number of authors over the past decade [2, 3, 4, 7].

Currently, there is a clearly expressed need to find new, more attractive forms of physical activity that will be interesting to students and help them

join a healthy lifestyle. One of these options can be considered the Chinese martial art of wushu, as an alternative form of physical activity that helps improve the physical and psycho-emotional state of students [5]. Wushu develops not only physical qualities - strength, flexibility, endurance and coordination, but also concentration, attention, memory, discipline, moral and volitional qualities [1]. After analyzing the scientific and methodological literature, we discovered a gap in the study of the influence of wushu on the health of students studying at a university. There are only a few such works, and they are mainly devoted to sectional classes with students [6, 8].



Objective of the study was to identify the effectiveness of the use of sports and recreational means in the conditions of students mastering an elective course in wushu.

Methods and structure of the study. The experiment was conducted from October 2022 to April 2024 at Tomsk State University, which involved 89 students of basic and preparatory medical health groups aged 17-22 years, who chose the elective course «Wushu». During the study, a pedagogical technology for physical education of students using wushu was developed, aimed at improving the physical and mental health of students. During the experiment, a number of functional tests were carried out to study the physical condition of the subjects.

The work of the cardiovascular system was studied using the endurance coefficient, the level of physical condition, the Ruffier-Dixon test, and the Kerdo test. The experiment showed that wushu classes have a positive effect on the functioning of the cardiovascular system. The endurance coefficient (EF) is used to assess the degree of fitness of the cardiovascular system to perform physical activity.

Results of the study and discussion. At the beginning of the experiment, the CV value in the group of subjects was 17,73; at the end of the experiment, positive changes occurred – 14,84, which is an indicator of the norm and training of the participants. A test for «Level of Physical Condition» (LPC) was carried out. The level of physical condition was determined according to the system of E.A. Pirogova. At the beginning of the pedagogical experiment in the group of subjects, the following results were obtained: a «low» level of LPC was detected in 6 people, this is 8% of the total number of participants in the experiment, «below average» - in 20% (15 people), an «average» level of physical condition - in 46,7% (35 people), «above av-

erage» in 25,3% of subjects (19 people). In the final test, the level of physical fitness of all participants improved. A «low» level at the end of the experiment was established in 6 subjects (8%), in 12% of the subjects (9 people) the level was «below average», «average» – 29,3% (22 people), «above average» was recorded in 50,7% of the students studied (38 people). From this test we can conclude that wushu classes increase the level of physical condition of those involved. The Ruffier-Dixon test was used to assess cardiac performance during physical activity. Test results: 16 subjects – 21,3% of the total number of participants in the experiment at the beginning of the study received high scores, 33,3% (25 people) scored this parameter as «good». The average score was 29,3% (22 people), 5,3% (4 people) had a satisfactory result, 10,8% (8 people) had a bad score. After the experiment, performance increased significantly. The values of this test were recorded: 30,7% (23 people) showed a high performance rating, 38,7% (29 people) - good, 26,6% (20 people) - average rating for this test, satisfactory - 4% (3 people). The state of blood circulation, assessment of health, resistance to stress, as well as assessment of the activity of the autonomic nervous system (ANS) were carried out using the Kerdo index. It was revealed that the students who took part in the study both before and after the pedagogical experiment observed an increase in the balance of the sympathetic and parasympathetic influences of the nervous system (see table).

To find out the reasons for choosing the «Wushu» specialization, a survey was conducted of 89 students who decided to engage in this sport at the university. As the survey showed, only a few of the respondents (5 respondents) had previously practiced wushu; the rest of the students were not familiar with this type of physical activity. Most students cited the reasons for

Results of the dynamics of functional tests among students studying in the Wushu specialization at TSU (Tomsk)

Test name	n	Result	$X \pm m_x$	t	p
Endurance coefficient	75	Before	17,73 ± 0,39	5,04	<0,05
	75	After	14,84 ± 0,42		
Physical condition level	75	Before	0,6 ± 0,02	2,12	<0,05
	75	After	0,66 ± 0,02		
Ruffier-Dixon	75	Before	8,44 ± 1,06	2,85	<0,05
	75	After	5,29 ± 0,31		
Kerdo	75	Before	17,06 ± 2,59	3,21	<0,05
	75	After	4,91 ± 2,76		



choosing this specialization: the desire to engage in a new discipline, to become more flexible and coordinated. Many survey participants are attracted to wushu: belonging to Asian martial arts, self-defense, training of strength and endurance.

The students named the purpose of wushu classes as improving the physical qualities of the body, flexibility and stretching, the opportunity to become stronger, remove stiffness and tightness in the body, increase the level of endurance, maintain good physical shape and a healthy lifestyle. Two respondents honestly admitted that they attend classes to receive credit in the discipline «Physical Education». When asked whether Wushu specialization is needed at a university, all students answered positively, noting that this is «an interesting variety in basic specializations», «a good alternative to simple physical exercises», «an opportunity to broaden one's horizons and strengthen the body», and the choice is also based on learning the Chinese language as a means of expanding knowledge of Chinese culture.

Conclusions. Wushu classes using the developed pedagogical technology contributed to improving the level of physical health of students. The main motives for choosing wushu classes have been identified: interest in oriental culture, development of physical and mental abilities, the possibility of self-defense, stress relief and improvement of psycho-emotional state.

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