



Modern Approaches To The Formation Of Professional Readiness Of Future Specialists In Physical Rehabilitation In The Context Of Restoring The Health Of Athletes

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ABSTRACT

Health care reforms taking place in Ukraine make new demands on the training of future medical specialists in higher education institutions, so objectively there is an increase in importance of developing the professionalism of these professionals and an elevation of their competitiveness in the labor market. The aim of the study is to characterize the pedagogical diagnosis of the levels of readiness of future specialists in physical rehabilitation to work on restoring the health of athletes using information and cognitive criteria. Methods: theoretical, empirical; experimental; statistical. The article experimentally tested the effectiveness of the practical implementation of the system of professional training of future specialists in physical rehabilitation in the context of restoring the health of athletes. The results of the pedagogical experiment indicate significant positive changes in the levels of readiness to work to restore the health of athletes in students of the experimental group compared with the control group. The analysis of the results of the pedagogical experiment testified to the effectiveness of the developed system of professional training of future specialists in physical rehabilitation to work to restore the health of athletes.

Keywords: system of professional training, future specialists in physical rehabilitation, information-cognitive criterion, levels of readiness formation.

1. INTRODUCTION

Preserving and improving the health of the population has always been one of the key issues in society. The problem of human health is one of the most complex problems of modern science. After all, the health of the nation is an indicator of the civilization of the state, which reflects the level of its socio-economic development, the main criterion of expediency and efficiency of all spheres of human activity. The living conditions of modern man set urgent tasks to improve the scientific analysis of his health problems. Man is the highest value of society, and the health of which he is a carrier determines the harmonious development of man and thus becomes the key to the comprehensive development of society. Human health is a social value, an integral part of social wealth, and it depends on society how health is used, protected, and reproduced.

At present, the threat to human health is one of the most acute problems on a global scale. Social and economic realities indicate that the health of the population of Ukraine is deteriorating: life expectancy is reduced; population growth decreases; mortality rates are growing; chronic, socially dangerous diseases and bad habits are spreading. Health care reforms taking place in Ukraine make new demands on the training of future medical specialists in higher education institutions, so objectively there is an increase in importance of developing the professionalism of these professionals and an elevation of their competitiveness in the labor market. Domestic researchers (Belikova, 2012; Boyko, 2012; Sole et al., 2012; Sushchenko, 2015; Lyannoy, 2016) and foreign scientists (Gunn, Hunter, & Haas, 2012; Patton, Higgs, & Smith, 2013; Gümüş et al., 2020) actively conduct research on the problems of forming a competent specialist in the field of physical rehabilitation.

The study of the formation of professional readiness of physical rehabilitation specialists is becoming one of the relevant areas of interdisciplinary research both in our country and abroad. Methodological and theoretical aspects of the development of professional training of the individual have been studied by such scientists as: (Griban et al., 2018; Zhamardiy et al., 2019; Kornosenko et al., 2020; Momot et al., 2020; Kononets et al., 2021). In particular, a conceptual apparatus for training specialists in physical rehabilitation has been developed (Zhamardiy et al., 2020; Strashko et al., 2021; Shkola et al., 2021); general issues of professional training of future specialists in physical rehabilitation in higher educational institutions were covered (Belikova, 2012; Sushchenko, 2015; Kipyrych, 2020; Zhamardiy et al., 2020); certain aspects of medical and social rehabilitation were specified (Boyko, 2012; Kornosenko et al., 2020; Strashko et al., 2021; Tarasenko et al., 2021).

Scientists emphasize that the correct choice of criteria is one of the most important requirements for a pedagogical experiment, because the criteria help to determine the development of the characteristic to which the study is directed.

However, to date, insufficiently studied issues related to the development of criteria for the readiness of future specialists in physical rehabilitation to work to restore the health of athletes.

The article will examine the effectiveness of the practical implementation of the system of professional training of future specialists in physical rehabilitation in the context of restoring the health of athletes. The results of the pedagogical experiment will be analyzed.

2. MATERIALS AND METHODS

The aim of the study is to characterize the pedagogical diagnosis of the levels of readiness of future specialists in physical rehabilitation to work on restoring the health of athletes using information and cognitive criteria.

The pedagogical experiment lasted during 2018-2021 (ascertaining – 2018-2019, formative – 2019-2021).

In order to determine the levels of readiness of future professionals to work to restore the health of athletes according to the information-cognitive criterion we conducted the formative stage of the pedagogical experiment, in which students of third- and fourth-year from Poltava National Pedagogical University named after V. G. Korolenko, Poltava State Medical University, Kharkiv National University named after V. N. Karazin, Municipal Establishment «Kharkiv Humanitarian Pedagogical Academy» of Kharkiv Regional Council took part.

To experimentally test the effectiveness of the system of professional training of future professionals from physical rehabilitation, applicants from these higher education institutions were combined into two groups: the control group (CG, n = 103 people) and the experimental group (EG, n = 105 people).

Students of control groups studied according to the traditional system of training future specialists in physical rehabilitation in higher education institutions. The system of professional training of future specialists in physical rehabilitation to work on restoring the health of athletes developed by us was introduced into the professional training of applicants of experimental groups. Note that the term of study, curricula, requirements for student assessment, etc. in CG and EG were identical.

General scientific and special research methods were used to achieve the set goal and solve the problems, interconnected and consistently applied throughout the study:

- theoretical (for the formation of theoretical and methodological foundations of the study): analysis and generalization of philosophical, sociological, psychological, pedagogical, valeological literature; study of educational programs; regulatory and legislative documents; methodical recommendations and textbooks on psychological and pedagogical disciplines; study of the experience of physical education departments in

- higher education institutions;
- empirical (to determine the general health of students): methods of collecting information (questionnaires, surveys, pedagogical testing and observation of students' educational and training activities), analysis of learning outcomes, interviews, methods of expert assessments, self-assessment, generalization of independent characteristics;
- experimental (for the analysis of the basic ways of research of complex indicators): ascertaining, formative, control stages of pedagogical experiment, visual aids;
- statistical (to assess the statistical significance of differences in the status and dynamics of changes in health indices): descriptive statistics, determination of statistical significance of differences between groups by the Student's method and correlation analysis by the Pearson method.

3. RESULTS

In the theory and practice of pedagogical education there are general requirements for the selection and justification of criteria, which come down to the fact that they must reflect the basic patterns of personality formation; the criteria should be used to establish links between all components of the system under study; qualitative indicators must act in conjunction with quantitative ones.

The information-cognitive criterion indicates the degree of mastery by future physicians of: special knowledge, basic concepts in the direction of research of restoration of health of athletes, bases of rehabilitation in sports, technical means of physical rehabilitation, individual features of athletes and technologies of restoration of the person.

Indicators of information-cognitive criterion are: knowledge of the basics of physical rehabilitation in sports; innovative technologies to restore the health of athletes; basic concepts and arsenal of means of physical rehabilitation to work on restoring the health of athletes; providing first aid to the athlete; psychological recovery of the athlete; technical means of rehabilitation; values and priorities for the development of physical rehabilitation to work to restore the health of athletes; mechanisms to prevent injuries in sports; normative documents regulating innovative activity in physical rehabilitation.

After the completion of the formative stage of the pedagogical experiment in the process of implementing the system of professional training of future specialists in physical rehabilitation, the results according to the information-cognitive criterion were statistically significantly improved in the students of the experimental groups. They were 32.60 ± 0.60 points ($t_{stat.} = 3.49$) compared with similar results of students of control groups, which amounted to 30.02 ± 0.65 points ($t_{stat.} = 1.72$) (Tab. 1).

Table 1: Comparative analysis of the results of the formation of the readiness of students of CG and EG to work to restore the health of athletes according to the information-cognitive criterion after the pedagogical experiment

Groups	Results after the experiment			
	M ± m	σ	t _{stat.}	t _{crit.}
CG (n = 103)	30.02 ± 0.65*	6.71	1.72*	1.99
EG (n = 105)	32.60 ± 0.60*	6.13	3.49*	1.99

Note: * - $P \leq 0.05$

We should note, that at the beginning of the pedagogical experiment, a high level of readiness to work to restore the health of athletes according to the information-cognitive criterion demonstrated 5.77% of students of control group and 6.60% of students of experimental group. The average level of readiness to restore the health of athletes on the information-cognitive criterion was demonstrated by 33.65% of students in the control group and, respectively, 50.94% of students in the experimental group. 60.58% of students in the control groups and 42.45% of students in the experimental groups showed a low level of readiness to restore the health of athletes according to the information-cognitive criterion (Tab. 2).

Comparative analysis of qualitative results of the levels of readiness of students of control and experimental groups to work to restore the health of athletes according to the information-cognitive criterion after the pedagogical experiment indicates more pronounced qualitative changes in the applicants of the experimental group.

Thus, a high level of readiness to work to restore the health of athletes by information and cognitive criteria was found in 18 students of experimental group, which is by 11.32% more than the results before the pedagogical experiment. Instead, a high level of readiness to work to restore the health of athletes on the information-cognitive criterion in the control group after the experiment was found in 13 students, which is by 7.69% higher than the results before the pedagogical experiment.

Table 2. Comparative analysis of the levels of readiness of students of control and experimental groups to restore the health of athletes by information-cognitive criterion

Levels of readiness development	Groups									
	Control group (n=103)					Experimental group (n=105)				
	Before the experiment		After the experiment		Difference	Before the experiment		After the experiment		Difference
	Number of students (male)	%	Number of students (male)	%		%	Number of students (male)	%	Number of students (male)	
High	5	5.77	13	13.46	7.69	6	6.60	18	17.92	11.32
Medium	35	33.65	44	42.31	8.65	54	50.94	69	65.09	14.15
Low	63	60.58	46	44.23	16.35	45	42.45	18	16.98	25.47

This testifies to the effectiveness of the developed system of professional training of future specialists in physical rehabilitation to work on restoring the health of athletes (Tab. 2).

We also found more pronounced qualitative changes in students from experimental group with medium level of readiness to work to restore the health of athletes by information-cognitive criterion compared to similar results in students of control group. Thus, the number of applicants in experimental group with medium level of readiness to work to restore the health of athletes according to the information-cognitive criterion after the completion of the pedagogical experiment increased by 14.15%. But a comparative analysis of similar results in students of control groups shows less pronounced qualitative changes. The number of students in the control group with medium level of readiness to work to restore the health of athletes according to the information-cognitive criterion after the end of the pedagogical experiment increased by only 8.65%.

A more pronounced qualitative change in the applicants of the experimental group is evidenced by a comparative analysis of the results with a low level of readiness of the applicants from the control and experimental groups. It should be noted that the number of students with a low level of readiness to work to restore the health of athletes according information-cognitive criterion in the experimental group decreased by 25.47%. However, a comparative analysis of similar data in applicants of control group, who studied by the traditional system of training of future specialists in physical rehabilitation in higher education institutions, indicates less pronounced qualitative changes compared to the applicants of the experimental group. Accordingly, the number of students in the control group with a low level of readiness to work to restore the health of athletes by the information-cognitive criterion after the end of the pedagogical experiment decreased by 16.35%.

DISCUSSION

The results of the practical implementation of the system of professional training of future specialists in physical rehabilitation to work to restore the health of athletes showed its effectiveness. After the completion of the pedagogical experiment, the number of students with superficial knowledge of the use of technical means of rehabilitation, innovative technologies to work to restore the health of athletes and psychological recovery significantly decreased. However, number of students with episodic manifestations of systemic and strong professionally oriented knowledge of basic concepts and arsenal of means of physical rehabilitation to work on restoring the health of athletes, sufficient knowledge of current regulations governing innovative activities in physical rehabilitation had increased. All the above indicates a high level of need of future physical rehabilitation specialists in following: continuous self-development and self-improvement in rehabilitation in sports, the desire to restore the health of athletes in professional activities; possession of systematic and strong professionally oriented knowledge on providing first aid to the athlete, basic concepts and arsenal of means of physical therapy to work on restoring the health of athletes, innovative technologies for restoring the health of athletes, technical means of rehabilitation, the basics of physical rehabilitation in sports.

4. CONCLUSIONS

The results of the pedagogical experiment indicate significant positive changes in the levels of readiness to work to restore the health of athletes in students of the experimental group compared with the control group. High level of readiness of applicants of experimental groups to work to restore the health of athletes according to the information-cognitive criterion was achieved due to the predominant use in the educational process of the method of «brainstorm» and the method of situational exercises.

The analysis of the results of the pedagogical experiment testified to the effectiveness of the developed system of professional training of future specialists in physical rehabilitation to work to restore the health of athletes.

We see prospects for further research in determining the levels of readiness of future specialists in physical rehabilitation to work to restore the health of athletes by creative and activity criteria.

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