



## OVERVIEW OF THE RESEARCH ACTIVITY OF THE DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS AT TRAKIA UNIVERSITY

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### ABSTRACT

The aim of the study is to examine the most important scientific-research and educational-practical directions in which the lecturers of the "Physical Education and Sports" Department at Trakia University work. Methods: content analysis and synthesis. Results: The Department works in the following directions - Optimization of the learning process, Research of morpho-functional qualities and physical fitness, Body weight control, Food and exercise habits, healthy lifestyle, Motivation for physical activity and sports, Functional diagnostics of spinal curvatures, Prevention of sports injuries, Sports-competitive activity. Conclusion: the analysis of the scientific-research and pedagogical experience of the lecturers of the Physical Education and Sports department found that their activities are aimed at: maintaining and strengthening the health of students throughout the entire period of study; comprehensive physical training of students; education in students of the need for motor activity and sports; creation of movement programs, sports games and appropriate sets of exercises to maintain the functional state of the spine and prevention of spinal deformations; improving the sports skills of student athletes. It also reveals the need to create an educational program for building a healthy lifestyle, to be included in physical education and sports activities.

**Key words:** physical activity, sports, students, physical education

### INTRODUCTION

Physical activity and sports contribute to overcoming modern challenges. The importance of the Physical education and sports discipline during university studies as a way to counteract immobility is further confirmed. The inclusion and promotion of active motor activity in students leads to a reduction in the tendency to increase in overweight and obesity. The presence of sports activities in higher education institutions ensures good health for future professionals and has positive health and economic consequences.

Physical education and sports is the only study discipline at the university that aims to guide young people to a healthy lifestyle, building and maintaining physical and psychological qualities.

As a positive addition is the creation of social values such as self-discipline, team spirit, cooperation, tolerance, etc.

The lecturers from the Physical education and sports department are extremely responsible towards the mission of building and maintaining good physical and healthy habits among young people of student age. All the directions in which they work increasingly enforce and prove the irreplaceable role of sports and physical education in health, social and economic aspects.

The Department of "Physical Education and Sport" was established in 1974 as part of the Faculty of Veterinary Medicine and the Faculty of Animal Science in Stara Zagora. The main scientific directions in which the lecturers work are: vocational-applied motor training as a factor for optimizing training in physical education, physical fitness, body mass outside the norm, healthy lifestyle.

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The aim of the study is to examine the most important scientific-research and educational-practical directions in which the lecturers of the "Physical Education and Sports" Department at Trakia University work.

## METHODS

Review and analysis of literary and Internet sources to reveal the main topics and problems that are developed in the theory and practice of the department. Content analysis and synthesis.

## RESULTS

### Optimization of the learning process

The lecturers from the Physical education and sports department strive to provide quality academic training to the students studying at Trakia University. For this purpose, the educational process at the Physical education and sports is optimized by including in many research projects. In recent years, the projects worked on are: "Influence of harmful habits on the physical fitness of students", "Interdependence between harmful habits and indicators of physical development and physical fitness", "Investigating the effectiveness of "running in place" for reducing body mass", "Investigating the effectiveness of a complex program on body mass composition in overweight students", "Impact of various activities with motor activities on the physical qualities and morphofunctional indicators of students", "Experimenting approaches to optimize the learning process and increase the physical fitness of students". Experimentation and testing of new motor programs for students - "Body program Galina Daykova-Plamen Petkov" (1), "Fitness program with expanders", "Specialized fitness program based on the circular method" etc. are carried out in the department. Some of the most successful programs are implemented in teaching and training activities, with the aim of improving the effectiveness of the learning process in the discipline of Physical Education and Sports.

### Study of morpho-functional qualities and physical fitness

Work related to physical fitness, physical activity and lifestyle studies is noteworthy. Ivanova, M., P. Petkov, (2) analyze the impact of innovative methods of developing the physical qualities of strength and endurance in students. Morpho-functional indicators and the physical qualities of strength and endurance were studied. The results

show that the developed fitness program with expanders is effective. This gives reason for its inclusion in the curriculum of Physical Education and Sports in the higher school in order to improve the physical qualities, strength and endurance of the students. The research of Peltekova I., Petkov P., (3) focuses on two aspects of the physical development of female students - anthropometric and physiometric indicators. The results show that 34.33% of the studied female students have a weight higher than ideal, 59.70% of them are underweight and only 5.97% are of ideal weight. The average BMI value is 20.05. Large individual differences were found in the data for postural strength, body mass and waist circumference.

P. Petkov (4) develops a fitness program that includes circuit training. The data after the experiment clearly indicate an improvement in the strength endurance of female students. In the following year, L. Lapadotov, N. Gocheva, M. Ivanova, T. Andreev and T. Kitanov (5) implemented a training program for training at the university, which experimentally proved its effectiveness by improving the studied physical characteristics of strength. These authors suggest that this program be implemented in physical education and sports classes in higher schools.

P. Angelova and P. Petkov (6) report data on physical capacity, functional status and degree of development of motor qualities in students. The conclusions drawn are about a high relative proportion of students with low values of vital capacity, low values of muscle strength by dynamometry and a disproportion between good physical development due to acceleration factors and recorded retention or deterioration of physical capacity.

### Body weight control

Periodically, studies have been done on the prevalence of overweight in students. In 2010 G. Dyakova, (7) the data obtained indicate that the relative share of overweight female students is nearly three times higher, and for male students more than five times higher, compared to the relative share of their peers in Bulgaria. The same study also found a high risk of cardiovascular disease in both women and men.

Later, P. Angelova, (8), P. Petkov, (9) found that the relative share of registered with normal body weight almost remained, however, the relative

share of overweight students increased significantly. This confirms the need to carry out constant control not only of the body mass index, but also to carry out a detailed control of the body mass composition of the student youth.

#### Motivation for physical activity and sports

The question of the motivation for fitness activities in free time among sports students is also not missed. The attitude of students to the learning process in physical education and sports has been repeatedly studied in order to update and optimize the practical work. G. Dyakova and A. Bozhkova (10) propose approaches to influence and increase motivation for a healthy lifestyle in young people. Targeted activities with motor activity and sports have been proven to improve the structural and functional parameters of students and contribute to the reduction of harmful habits.

P. Petkov (11) examines the extent of leisure-time fitness motivation and the use of dietary supplements and anabolic steroids. Of interest are the data indicating that the majority of respondents visit the gym more than four times a week. The large percentage of men set their main goal to increase muscle mass, and women - to lose weight. A very large part of the respondents uses nutritional supplements, seeking information mostly from a fitness instructor. More than half of the respondents indicate that they have taken anabolic steroids, and information about what to use is mostly from internet sites.

#### Nutritional and exercise habits, healthy lifestyle.

The eating habits of the students, their attitudes towards physical activity both in physical education and sports classes at the university, and for independent activities in their free time were investigated. In this regard, there are also studies on the attitude towards the use of nutritional supplements and anabolic steroids by sports students. P. Petkov (12) published an analysis of students' eating habits and physical activity. This analysis shows that students do not eat healthily due to lack of time, spend a large part of the day sitting and have insufficient physical activity. After the research, it is assumed that the students' awareness of the benefits of healthy eating and increasing their physical activity should be increased. P. Angelova and I. Angelova (13) conducted a study that aimed to examine which factors influence the use and choice of dietary

supplements among college students. The conclusion is that a small proportion of students use dietary supplements, and those who do rely mainly on their own knowledge and to some extent on fitness instructors and nutritionists. If measures are proposed to increase students' awareness of nutritional supplements, their health education will be enriched as part of physical education.

The purpose of study of one of the most current studies made in 2022 by P. Angelova (14) is to research some aspects of health, nutritional characteristics, risk factors and physical activity in students of Bulgarian universities. The results of the published researches in the following universities are analyzed: Angel Kanchev University of Ruse, Thrakia University and Medical College, Stara Zagora, Medical University, Pleven. The analysis of the results of the surveys conducted in different universities showed that students have the right attitude to the role and importance of healthy living habits. Alcohol use, cigarette smoking and lack of physical activity are of the greatest importance for deteriorating health in adolescence. In this regard, the need to create an educational program for building a healthy lifestyle, which will be included in physical education and sports activities, is also revealed.

#### Functional diagnosis of spinal deformations

There is also a wide range of research in the field of prophylaxis and prevention. Their goal is to assess the functional state of the spine in college-aged youth. P. Angelova and P. Petkov (15) advocate the thesis of the need for diagnosis, prevention and control of posture in youth of student age.

The purpose of their research is to collect data on the condition of the back muscles and to get an idea of the available deviations from the normal posture. The reported results indicate a more frequently measured deviation from the norm in women. The main stabilizing muscles were of reduced tone and function especially in women, and in men more limited movements and reduced mobility of the spine were found. On this basis, movement programs, sports games and appropriate sets of exercises have been created to maintain the postural status and prevent spinal deformations.

### Prevention of sports injuries

The efforts of some of the specialists in the PHES department are also related to the prevention of sports injuries. For this purpose, the current state of sports traumatism in student sports is studied. In the publication of Galina Dyakova, Petya Angelova, Ivelina Angelova, Tanko Dyakov and Stefania Belomazheva-Dimitrova (16) the existing traumas and injuries in active sports students were registered and the need to apply methods and tools that would contribute to the recognition of sports injuries and increase the skills of protecting one's own health in athletes.

S. Belomazheva-Dimitrova and P. Angelova (17) attempt to qualify the injuries of female volleyball students and to determine the nature, location, causes, outcome of the injuries and possible risk factors. Lower extremity injuries were found to predominate. It is specified that the large number of injuries involve soft tissues and are related to muscles and tendons. The results of the study provide useful insight into the nature, frequency and locations of injuries in volleyball players.

The role and importance of stretching exercises have been studied as an easy and affordable way to maintain an optimal condition of the musculoskeletal system. The impact of stretching exercises as a way of correcting muscle imbalance and reducing the influence of negative static and biomechanical factors was investigated. P. Angelova (18) explores the application of stretching exercises as a way to restore muscle balance. The conclusion states that the suggested special exercises for fitness, muscle balance and normal back muscle tone are important for recovery and prevention.

### Sports and competitive activity

The teachers from the PHES department also coach students and prepare them for football, rugby, badminton, volleyball and basketball. This part of the work of the specialists from the PHES department facilitates the mass spread of sports among students. Students' participation in sports tournaments in swimming, volleyball, basketball, football, athletics, skiing, judo is traditionally strong. In recent years, students have had numerous sporting achievements and been selected in national summer and winter universiades, state championships, student sports games. They also actively participate in competitions in beach volleyball, beach tennis,

field hockey, kick boxing, chess and sports orientation.

### CONCLUSION

The analysis of the scientific-research and pedagogical experience of the lecturers from the PHES department found that their activities are aimed at:

Maintaining and strengthening the health of students throughout the entire period of study;  
Comprehensive physical training of students;  
Education of the students' need for motor activity and sports;

Creation of movement programs, sports games and appropriate sets of exercises to maintain the functional state of the spine and prevention of spinal deformations;

Improvement of sports skills of student athletes.

It also reveals the need to create an educational program for building a healthy lifestyle, to be included in physical education and sports activities.

### REFERENCES

1. Dyakova, G., P. Petkov, Body program GD-PP - methodology and effectiveness. Yearbook of the Technical University in Varna, ISSN 1311-896X, pp. 123-127, 2011
2. Ivanova, M., P. Petkov, Innovative Methods For Developing Physical Strengths And Endurance In Students, *Trakia Journal of Sciences*, Vol. 17, Suppl. 1, pp 821-825, ISSN 1313-3551, 2019.
3. Peltekova I., Petkov P., Sport and Science, Sofia, "Determining the level of physical development of female students from study groups in physical education and sports at the University of Thrace", ISSN 1310-3393, pp. 161-169, 2/2017
4. P. Petkov, Effect of circular workout on muscle strength of female student, *Trakia Journal of Sciences*, Vol. 18, Suppl. 1, pp 713-719, ISSN 1313-3551, 2020
5. L. Lapadatov, N. Gocheva, M. Ivanova, T. Andreev, T. Kitanov, Training program for development of the physical characteristic of strength in students, *Trakia Journal of Sciences*, Vol. 19, Suppl. 1, pp 594-598, ISSN 1313-3551, 2021
6. Angelova, P., P. Petkov, Research of physiometric indicators of female students from trakia university, *Trakia Journal of Sciences*, Vol. 18, Suppl. 1, pp 695-698, ISSN 1313-3551, 2020.

- ANGELOVA P.
7. Dyakova, G., Survey of the prevalence of overweight in students. *Sp. Sport and Science*, ISSN 1310-3303, vol. no. 1, S., pp. 153-160, 2010
8. P. Angelova STUDY AND COMPARATIVE ANALYSIS OF BODY WEIGHT INDICATOR DATA IN WOMEN STUDENTS *Trakia Journal of Sciences*, Vol. 19, Suppl. 1, pp 654-658, Copyright © 2021 Trakia University Available online at: <http://www.uni-sz.bg> ISSN 1313-3551 (online) doi:10.15547/tjs.2021.s.01.100, 2021
9. Petkov, P., Research and comparative analysis of data for indicators of body mass of male university students, *Trakia Journal of Sciences*, Vol. 19, Suppl. 1, pp 886-891, ISSN 1313-3551, 2021.
10. Dyakova, G., A. Bozhkova, Some approaches to forming a healthy lifestyle in students. *Sp. Sport and Science*, ISSN 1310-3303, no. 2, S., pp. 96-100, 2011
11. Petkov, P., Fitness in leisure time - motivation for activities and use of dietary supplements and anabolic steroids, Session schedule&Abstracts, – Ruse, Razgrad, Silistra, FRI-2G.104-1-HC-07, стр. 272 – 273, 2018
12. P. Petkov, Nutritional Habits And Physical Activity Of Students, *Trakia Journal of Sciences*, Vol. 17, Suppl. 1, pp 813-820, ISSN 1313-3551, 2019.
13. P. Angelova, I. Angelova, FACTORS INFLUENCING THE CHOICE OF NUTRITIONAL SUPPLEMENTS AND VITAMINS FOR STUDENTS *Trakia Journal of Sciences*, Vol. 19, Suppl. 1, pp 659-662, 2021 Trakia University Available online at: <http://www.uni-sz.bg> ISSN 1313-3551 (online) doi:10.15547/tjs.2021.s.01.101, 2021
14. P. Angelova, Health status, nutrition, physical activity and bad habits in students of Bulgarian universities 11th National Congress of nutrition with international participation, May 26-29, Varna, p. 132-133, 2022
15. Angelova, P., P. Petkov, Comparative analysis of the functional status of the spine in students men and women, *Trakia Journal of Sciences*, Volume 13, Suppliment 1, pp. 403-406, ISSN 1313 – 7050, 2015.
16. Dyakova G., P. Angelova, Iv. Angelova, T. Dyakov, S. Belomazheva-Dimitrova SPORTS INJURIES IN STUDENTS – ATHLETES, 22-23 юни 2017, *Trakia Journal of Sciences*, Vol. 15, Suppl. 1, pp 369-374, 2017 Trakia University Available online at: <http://www.uni-sz.bg> ISSN 1313-7069 (print) ISSN 1313-3551 (online) doi:10.15547/tjs.2017.s.01.062, 2017
17. S. Belomazheva-Dimitrova, P. Angelova, FREQUENCY AND CAUSES OF INJURIES IN FEMALE STUDENT VOLLEYBALL COMPETITORS, magazine "*Pedagogical Almanac*", issue 2, pages 279-286 ISSN: 2367-9360 (Online) ISSN: 1310-358X (Print), 2019
18. P. Angelova, STRETCHING AS A PART OF A STRATEGY FOR THE PREVENTION AND MANAGEMENT OF CHRONIC LOW BACK PAIN, *Trakia Journal of Sciences*, Vol. 17, Suppl. 1, pp 905-908, Copyright © 2019 Trakia University Available online at: <http://www.uni-sz.bg> ISSN 1313-7069 (print) ISSN 1313-3551 (online) doi:10.15547/tjs.2019.s.01.149, 2019