

## **РЕЗИЮМЕТА**

**На английски**

**На публикацииите на ст. преп. д-р Пламен Георгиев Петков за конкурс за заемане на академична длъжност „Доцент“ в научна област 7. Здравеопазване и спорт; професионално направление 7.6 Спорт; научна специалност „Теория и методика на физическото възпитание и спортната тренировка, включително методика на лечебната физкултура (физическо възпитание, спорт и лечебна физкултура)“**

- 1. Angelova, P., P. Petkov, Comparative analysis of the functional status of the spine in students men and women, Trakia Journal of Sciences, Volume 13, Supliment 1, pp. 403-406, ISSN 1313 – 7050, 2015**

### **Abstract:**

Whether an initial curved spine will move to a higher degree and bad posture will cause health problems so far can not be safely established by certain method. It is need early diagnosis, prevention, postures control of these cases. The aim of the study was to compare the data on the state of the back muscles between men and women and to understand how existing deviations from the normal posture. Somatoskopics method for diagnosing spinal deformities served us to objectify the results of this screening. Recognize incomplete to evaluate the degree of spinal deformities, but emphasize that the use of skoliosis measuring devices, radiographic and Fluorographic photosomatoskopists laborious methods, and some of them are only applicable to heavy spurs and cases hump. Other methods are also expensive. The study was conducted with 50 students and 262 students of Trakia University - Stara Zagora at the beginning of 2013/14 school year. The determination of the functional condition of the spine is made up of several test mobility in the frontal and sagital plane. The results shown in men and women suggest that women more often measured deviation from normal . The main stabilizing muscles have reduced tone and function especially in women and men reported more limited movements and reduced mobility of the spine. The sports university with the greatest prophylactic importance in spinal deformities are basketball, volleyball and swimming, we recommend practicing. For many of the students with spinal deformities find is primary. Those who have already been diagnosed with such pathology are performed control and continuous corrective actions.

2. **Petkov, P., M. Shoshev, Study of female students resilience, Trakia Journal of Sciences, Volume 15, Supliment 1, pp. 442-446, ISSN 1313 – 7069, 2017**

**Abstract:**

Resilience as a primary physical characteristic is determined by the fact that it allows characterization of the health of the younger generation. It determines the efficient operation of vital human body systems: cardiovascular, respiratory, circulatory system, musculoskeletal system and the aerobic metabolism of the organism. The aim of this study is to determine the level of physical performance of female students from Trakia University. Testing is applied as an assessment method of the level of endurance of 67 female students from the Faculty of Economics, Faculty of Agriculture and the Faculty of Veterinary Medicine, Trakia University. Two tests are selected – the Cooper and Beep tests. It is established that a very large relative part of the female students are characterized with unsatisfactory level of physical stamina development. Targeted and perennial work for the development of physical stamina, as well as a need for the intensification of the students to develop this characteristic during physical education classes are recommended. Convincing them that the level of physical endurance is directly related to health and the level of efficiency is significant.

3. **P. Petkov, Nutritional Habits And Physical Activity Of Students, Trakia Journal of Sciences, Vol. 17, Suppl. 1, pp 813-820, ISSN 1313-3551, 2019**

**Abstract:**

A survey of 176 students (women) in the first and second course of all specialties from the Faculties of Economics, Agriculture and Veterinary Medicine at Trakia University, Stara Zagora, was conducted. The aim of the study was to identify the food habits and the physical activity of the students. Theoretical analysis, questionnaire, graphical analysis, comparative analysis of relative shares and alternative analysis were applied to achieve this goal. Anonymous survey was conducted to collect quantitative information on the eating habits and physical activity of students from Trakia University. The questionnaire included 22 questions. Analysis of the results displayed that students do not eat healthily due to lack of time, spend most of the day sitting and have insufficient motor activity. The survey data led to the assumption that the students' awareness of the benefits of healthy eating and increasing their physical activity has to be increased.

4. **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**

**Abstract:**

A pedagogical experiment with 66 students (women) from first and second course from all specialties in the Faculties of Economics, Agriculture and Veterinary Medicine at Trakia University, Stara Zagora, randomly divided into an experimental group (36 students) and a control group (30 students), was carried out. The aim of the study was to establish the impact of innovative methods for developing students' physical strength and endurance skills. Theoretical analysis, pedagogical experiment, spatio-pedagogical testing, pedagogical observation, variation analysis, graphical analysis and comparative analysis were applied to solve the research goal. A test battery comprising of 20 morpho-functional indicators and 13 indicators for physical strength and endurance was developed. The results and analysis showed that the experiment was successful and the developed fitness program with expanders was effective. The data obtained is indicative that the inclusion of the developed fitness program with expanders in the curriculum of Physical Education and Sports in the university will lead to an improvement in the physical skills strength and endurance, of the students.

5. **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**

**Abstract:**

The testing was conducted during the winter semester of the academic year 2016/2017. The study contingent consists of 69 female students from the Faculty of Agriculture, the Faculty of Veterinary Medicine and the Faculty of Economics at the Trakia University of Stara Zagora. They were divided into two groups - experimental and control. The purpose of this study is to determine the effect of circular workouts on the level of physical quality of muscle strength of Trakia University female students. To achieve our goal, we set out the following tasks - researching literature sources, developing and testing a specialized fitness model, developing a test battery, processing and analyzing the data from the testing. The following methods were used - pedagogical experiment, testing, variational analysis, comparative analysis, graphical method. A test battery has been

developed. The results and analysis show that the experiment is successful and the developed fitness program is effective. Effectiveness of developed authors fitness model, based on circular workout, as part of the overall fitness training of the female students, for priority development of motor quality “strength” is experimentally justified.

- 6. Petkov P., Motivation of the students from Trakia university for participation in physical education classes, Trakia Journal of Sciences, Trakia University, , Volume 15, Supliment 1, ISSN 1313 – 7069, стр. 433-442, 2017**

**Abstract:**

The aim of the present study was to examine the motivation of students from Trakia University to participate actively in physical education classes and sports. A survey as an express method of assessing students’ motivation for sports activities was conducted. Different aspects of their sports interests were studied. It was established that students have positive attitude towards physical education classes and sports. Insufficient awareness of students with regard to all the benefits of practicing physical exercises and sports was registered. Because of the high demand during the educational process, students do not have enough free time for additional sports activities. Based on the obtained results, the following recommendations are proposed: to create conditions for inclusion of all students in additional sports; obtaining of theoretical knowledge by students on the use, effects and benefits of practicing physical exercises and sports; acquisition of knowledge and skills of students for individual sports activities, and improvement and upgrading of the facilities of the university.

- 7. P. Petkov, Factoral structure of morpho-functional indicators and motor qualities of muscular strength and endurance in students, Trakia Journal of Sciences, Vol. 18, Suppl. 1, pp 720-726, ISSN 1313-3551, 2020**

**Abstract:**

The purpose of the present study is to establish the factor relationships between morpho-functional parameters and physical qualities, muscle strength and endurance due to the application of a specialized fitness model. To achieve this goal we the following tasks are set: research of literature resources; development and testing of a specialized fitness model; development of a test battery;

processing and analyzing the data from the conducted testing. Research methods - pedagogical experiment, testing, factor analysis, graphical analysis. The contingent of the study are 34 students from the Trakia University. The students are on average 20.04 years old. The results and their analysis show that in the applied fitness model there is a decrease in the number of the main factors in the factor structure of the morpho-functional indicators and the observed motor functions; the increase in the influence of the first main factor in the second study explains the higher percentage of the cumulative variance. This leads to structural changes in the content of the main factors; changes the influence of factors, which after the experiment increases the influence of endurance due to the composition of body weight; the force factors retain approximately the same weight in the second study.

**8. P. Petkov, Influence of circular exercises on the cardiovascular and respiratory system of female students, Trakia Journal of Sciences, Vol. 18, Suppl. 1, pp 727-735, ISSN 1313-3551, 2020**

**Abstract:**

The purpose of the present study is to determine the influence of circular exercises on the cardiovascular and respiratory systems of Trakia's University female students. To achieve this goal the following methods are used: testing, pedagogical experiment, variation analysis, comparative analysis, graphic analysis. 69 female students are the contingent of the study with an average age of 20.04 years old from the first and second school year, studying in three different faculties of the Trakia University - Faculty of Economics, Faculty of Agriculture and Faculty of Veterinary Medicine. They were divided into two groups. The experimental group of 36 female students - with this group was hold circuit trainings twice a week in the duration of 30 weeks. On the basis of the conducted research, in order to increase the efficiency of the fitness training by applying a specialized training fitness model intended for the students, and the analyzes made it can be concluded: The effectiveness of the author's fitness model, based on circular training, as part of the overall fitness training of the students for strengthening the cardiovascular and the respiratory systems of the students, are experimentally substantiated.

- 9. P. Petkov, Influence of the circular training on strength endurance of female students, Trakia Journal of Sciences, Vol. 19, Suppl. 1, pp 892-899, ISSN 1313-3551, 2021**

**Abstract:**

The contingent of the study are 69 female students with an average age of 20.04 years from the first and second year of three faculties of the Thracian University - Economics, Agriculture and Veterinary Medicine. They were divided into two groups. Experimental group of 36 students - with it were conducted circuit training twice a week for 30 weeks. A control group of 33 students who studied according to an approved curriculum for the discipline "Physical Education and Sports". The testing was conducted in the 2016/2017 school year. The aim of the study is to determine the influence of circuit training on the level of physical strength strength endurance of female students from Thracian University. To achieve this goal we used the following methods: testing, pedagogical experiment, variation analysis, comparative analysis, graphical analysis. The developed test battery includes five tests. After using mathematical methods of analysis, we can draw the following conclusion: circuit training improves the strength endurance of female students.

- 10. 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**

**Abstract:**

Reliable data on physical fitness and determination of the functional state of the body reflect the level of physical capabilities and the level of development of motor skills. Objective: Determination of individual physiometric indicators in students. Contingent: 130 female students of Trakia University. The average value of the vital capacity in the studied students is 3, 60, and vital indicator 61,61. With the left and right hand dynamometer, mean right hand values of 15,46 kg were found, and left - 12,76 kg. Force strength is set at 63,42kg. Conclusion: The relative share of students with low values of the vital capacity is high, the values for dynamometry force are also low; there is a disproportion between good physical development due to acceleration factors and recorded retention or deterioration of physical capacity.

**11. 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**

**Abstract:**

Aim of the conducted examination is to determine the indicators of body mass for male students at the Trakia university, city of Stara Zagora, and to compare the results to similar researches amongst other Bulgarian universities. Overview and analysis of the main theoretical statements and examinations of anthropometric indicators and the calculated on this basis index of body mass for male university students; researches of students according to morphological indicators; statistic processing and comparative analyses of the results. In the Trakia university the relative share of underweight people is 1.56%. The group of students with normal weight form 46.88%. The part of students, falling into the overweight category is 40.63%. The obesity rate among the examined resulted in 10.93%. This tendency is disturbing, if it is to be compared to previous researches at the same university - in 1918 students with overweight marked an increase in the relative portion - 51.56%, while students with normal weight were 46.88%. According to the conducted comparative analysis between the existing researches it can be found out that a lot of the students have normal weight and IBM, but there is a tendency of increasing underweight and even bigger rise of the overweight.

**12. Petkov, P., Correlation Between Muscle Strength And Endurance When Using Specialized Fitness Training For Students, Trakia Journal of Sciences, Vol. 17, Suppl. 1, pp 807-812, ISSN 1313-3551, 2019**

**Abstract:**

Testing was conducted during the winter semester of the academic 2016/2017 year. A total of 67 students from the Faculties of Agriculture, Veterinary Medicine and Economics at Trakia University , Stara Zagora, are the contingent of the survey. The average age of the surveyed students was 20.04 years.

The aim of the study was to establish a correlation between muscle strength and endurance as a result of applying a specialized fitness model. To achieve this goal, the following tasks were assigned: review of scientific literature, development and approbation of a specialized fitness model, development of a test battery, processing and analysis of the data from the conducted testing. The following methods were applied: pedagogical experiment, testing and correlation analysis.

Based on the conducted detailed correlation analysis, we believe that following the experimental fitness program, the relationships between muscle strength and stamina retain their essential characteristic - with a significant number of reliable statistical links; after the completion of the experiment, the statistically significant correlations of the EG increased. Significant increase with 99% statistical significance between motor skills after the application of the author's fitness model was observed; the conducted study showed different degrees of correlation dependencies between the motor skills muscle strength and stamina of the students.

**13. Ангелова, П., П. Петков, Функционална диагностика на гръбначни изкривявания при студенти, Сборник доклади “20 години специалност Рехабилитатор”, ТрУ, Медицински колеж, Стара Загора, стр. 186-191, 2015**

**Abstract:**

The problem of the incidence and prevalence of spinal deformities is the subject of study and research on a number of different specialists at home and abroad. Bad posture, repeated vicious engine model seated on a chair at work and carrying weights leads to disruption of muscle balance, and consequently to spinal deformities. However almost no research data on students. In studies literature does not find enough research and special observations dedicated to spinal deformities to students. The aim of the study was to obtain information on the back muscles of students and to get some idea of the available variations of the normal posture. To realize this purpose it is necessary to carry out the following tasks: Carry out testing and to process and analyze the results. The study was conducted with 50 students and 262 female students of Trakia University - Stara Zagora at the beginning of the academic year 2013/14 Attached are the following methods: Quadrangle V. H Moshkov, Test mobility of the spine, Means of Ott, Means of Schober, Interview, Theoretical analysis, Analysis of relative shares. In conclusion can be drawn the dissatisfaction emphasize that in our study we found insufficient control observation from school age. For many students with spinal deformities find is primary. In a small number of those who are diagnosed as pathological control is performed and transient corrective actions. Found that supportive therapy, unfortunately, virtually absent.



- 14. Пелтекова И., Петков П., Спорт и наука, София, „Констатиране нивото на физическо развитие на студентки от учебни групи по физическо възпитание и спорт в тракийския университет”, 2/2017, ISSN 1310-3393, стр. 161-169**

**Abstract:**

The present study focuses on two aspects of physical development of female students – anthropometric and physiometric indicators. In order to establish the physical development, 19 indicators have been extracted and divided into two test batteries. The research has been conducted on 67 first and second year female students from three faculties of Trakia University - Economic, Agricultural and Veterinary-Medicine. The students attend classes in physical education and sport. The average age of the students is  $20,04 \pm 2,69$  years. The results show that 34,33% of the students have a weight higher than the ideal, 59,70% of the students weigh less than the ideal and only 5,97% have ideal weight. The average level of BMI = 20,05. Our study sample is homogeneous only in terms of the circumference of the upper arm, the inhalation-exhalation difference and the weight of the bones. Large individual differences were observed in terms of deadlift strength, body weight, and waist circumference.

- 15. Петков, Р, Фитнес в свободното време – мотивация за занимания и употреба на хранителни добавки и анаболни стероиди, Sessions schedule&Abstracts, 2018 – Ruse, Razgrad, Silistra, FRI-2G.104-1-НС-07, стр. 272 – 273**

**Abstract:**

The aim of the study was to explore the motivation for leisure activities and the use of nutritional supplements and anabolic steroids. An exploratory survey was conducted as an express method for assessing the motivation of gym attendants for exercising and taking supplements and anabolic steroids. It has been found that the number of up to 40 years old people training in the gym predominates. After that age, the percentage of gym attendants drops significantly. A large percentage of trainees do not realize the benefits of physical exercise and visit the gym just because of others or because it is fashionable. The majority of respondents visit the gym more than four times a week, and their activities last up to two hours. The main goal for most men is to increase muscle mass, while for the women - to lose weight. A very large proportion of the respondents use dietary

supplements, obtaining information predominantly from a fitness instructor. More than half of the respondents have taken anabolic steroids by receiving information about them primarily from the Internet. Based on the results obtained, the following recommendations are offered: continuous improvement of the knowledge of professional fitness instructors on the composition, use and impact on human of various nutritional supplements and training programs; explaining by professional fitness instructors to those who want to take anabolic steroids the risks of potential damage to their health.

**16. Petkov, P., P. Angelova, Изследване на физиометрични показатели при студенти, Sessions schedule&Abstracts, 2018 – Ruse, Razgrad, Silistra, FRI-2G.104-1-НС-06, стр. 270 – 271**

**Abstract:**

Reliable data on physical fitness and determination of the functional state of the body reflect the level of physical capabilities and the level of development of motor skills. Objective: Determination of individual physiometric indicators in students. Contingent: 64 students of Thracian University. The average value of the vital indicator in the studied students is 62.94. With left and right hand dynamometer, mean right hand values of 30.95 kg were found, and left - 34.0 kg. Force strength is set at 120.38 kg. Conclusion: The relative share of students with low values of the vital indicator is high, the values for dynamometry force are also low; there is a disproportion between good physical development due to acceleration factors and recorded retention or deterioration of physical capacity.