

# THEORETICAL TRAINING IN PHYSICAL EDUCATION OF HIGHER EDUCATIONAL ESTABLISHMENTS' GIRL STUDENTS

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**Abstract.** *Purpose:* testing and analysis of theoretical-methodic training of girl students at physical education classes. *Material:* in the research 45 2<sup>nd</sup> year girl students of 18-19 age, participated. One group dealt with power-lifting and volleyball. Second group – practiced trainings by usual academic program. *Results:* it was found that girl students' theoretical knowledge corresponds to middle level. It was also established that increase of motivation for acquiring and mastering knowledge facilitates effectiveness of physical education trainings' construction. *Conclusions:* absence of physical education theoretical knowledge or its low level in girl students sharply reduces effectiveness of training and education, weakens interest to physical exercises' and sports' practicing.

**Key words:** girl students, physical education, power-lifting, test, control.

#### Introduction

Physical culture in HEE is an academic discipline and important basic component of formation of youth's general culture. It is known that mastering only practical skills of physical perfection, without sufficient theoretical and methodic knowledge does not permit for students to correctly apply their skills in independent practicing of physical exercises [2-5; 9; 26; 32, 34-36; 40] и во время профессиональной деятельности [3; 8; 11; 15; 16; 20-26].

Studying this problem, scientists T. Krutsevich, O. Marchenko and A. Tomenko conclude that important place in perfection of physical education system belongs to formation of values through theoretical training and increase of pedagogic control's effectiveness [10; 19]. In works by V. Sorokina and V. Temchenko main components of students' personal education level have been found. With it the authors underline need in control of theoretical knowledge in physical education. The authors affirm that presence of objective information permits to find strong and weak sides of structure of preparedness, to realize proper planning and correction of training process [15; 16].

Increase of effectiveness of pedagogic control over students' fitness level is rather important in perfection of physical education [6; 22-25, 37, 38]. N. Moskalenko et al. substantiated innovative technologies of physical education. They are directed on strengthening of students' health with the help of theoretical training and cultivation of personal values and motives for trainings [12]. In researches by N. Zavidovskaya and P. Oksem it is noted that theoretical aspects of education in sphere of physical culture have declarative character in higher school and exist only on pages of program documents [7; 14].

Analysis of publications shows that in conditions of higher education's reforming problem of theoretical learning and control over students' progress in practical and theoretical skills and knowledge acquires special urgency and requires further researches.

## Purpose, tasks of the work, material and methods

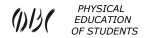
The purpose of the research is testing and analysis of theoretical-methodic training of girl students at physical education classes. The methods of the research: in the course of our work we used pedagogic observation for analysis and assessment of girl students' theoretical knowledge. Experimental researches were conducted on the base of Poltava National Technical Yuri Kondratyuk University (PoltNTU). In the research 45 2<sup>nd</sup> year girl students of 18-19 age, participated. First group dealt with power-lifting and volleyball. Second group – practiced trainings by usual academic program.

## Results of the researches

As the main hypothesis of this research we assumed that theoretical knowledge indirectly facilitates significant increasing of purposefulness and effectiveness of physical education process. Proper organization of physical education trainings in university shall envisage compulsory lecture hours for theoretical course. In this

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case all material to be studied is distributed by semesters. Topics of lecture course shall contain main information about theory and methodic of physical education and sports, healthy life style, professional-applied physical fitness.

In PoltNTU rather interesting teaching modules on program "Physical education" are practiced. Alongside with practical part (trainings and practical-methodic classes) theoretical section is stipulated. This section forms students' world vision, scientific-methodic knowledge and facilitates formation of positive attitude to physical culture and sports. Every module envisages complex of compulsory lessons. It includes also theoretical and independent students' trainings. Theoretical course is delivered in the form of lectures (12 academic hours). The course offers independent studying of the subject with the help of recommended literature and Internet resources. Student's individual work implies profound studying of separate theoretical and methodic questions of physical fitness's perfection, health improvement, sport's perfection.

Lecture course includes the following topics:

Lecture № 1. Physical culture and sports as natural component of general culture of society. Physical culture (PC) as social phenomenon in life of society. Main means of PC. PC and sports in life of modern man. Factors, determining demand of modern man in practicing of physical exercises. PC and sports in system of higher school. Functioning of sport club (SC).

Lecture № 2. Natural-scientific principles of physical education. Human organism as uniform complex biological system. Motor functioning and its influence on functioning of human organs and organism. Physical inactivity and hypokinesia. Laws of human organs' and organism systems' development in process of physical; exercises' practicing. Physiological characteristic of motor functioning means.

Lecture № 3. Principles of healthy life style (HLS). Conception of health. Main components of HLS and their characteristics. Factors, influencing on quality of life and life span of an individual. Motor functioning as important component of healthy life style.

Lecture № 4. Principles of physical and sports training. The essence of training process. Methodic principles of training's and its components' construction. Sport competitions as mean and method of sportsmen's training. Specific features of organization and planning of sport trainings.

Lecture 5. Professional-applied physical trainings (PAPT). Content and main tasks of PAPT. Factors, determining importance and general orientation of PAPT. Formation of applied movements, motor skills. Cultivation of special physical qualities. Dynamic of human workability during day, week. Means of workability's rising; struggle with industrial fatigue; prevention of professional diseases. Tests and control normative of PAPT.

Lecture  $N_2$  6. Physical culture in scientific organization of work (SOW). Physical culture and sports in SOW. Purpose and main tasks of physical culture in SOW. Formation of system of knowledge, motor skills in purposeful application of physical culture and sports' means in work and leisure for prevention of industrial fatigue. Prophylaxis of professional diseases; rising of productivity; preservation and strengthening of health.

Independent classes are organized with the help of electronic library of the university. Students deepen their knowledge with manuals and methodic recommendations, Internet resources. For control of theoretical knowledge we conducted pedagogic experiment in the form of theoretical testing at the end of 2<sup>nd</sup> academic year.

For determination of students' theoretical knowledge questionnaire is used at department of physical education of PoltNTU. The questionnaire contains 50 questions. Every question has four alternative answers, from which one, correct, shall be chosen. The tests include questions about healthy life style, history of physical education and sports, specific features of physical exercises' practicing, planning of physical loads in independent trainings.

Criteria of students' knowledge assessment depend on quantity of correct answers. Every correct answer brings 1 point: 50-40 points – "excellent"; 39-30 points – "good"; 29-20 points – satisfactory"; 19 points and less – "unsatisfactory".

For experiment we formed three groups of girl students. Two experimental groups: EG1 (girl students practiced power-lifting by the author's methodic); EG2 (girl students trained volleyball). One control group CG consisted of girl students, who were trained as per traditional academic program of PoltNTU. Quantity of girl students in every group was 15 persons. By mean group indicators of physical condition and physical fitness all



girl students did not confidently differ. We carried out experimental substantiation of training process's methodic. Effectiveness of the offered methodic was assessed by results of girl students' performances at competitions and by control over their emotional and physiological status.

Analysis of testing of girl students' theoretical knowledge in all directions of physical trainings showed that it corresponds to middle level. More detail results of the researches showed low level of theoretical knowledge of girl students, who were trained by traditional physical education program (CG) (see table 1). Girl students from volleyball group (EG2) had higher level of knowledge. The highest indicators belonged to girl students – power lifters (EG1).

Table 1
Assessment of knowledge in "Physical education" subject of PoltNTU second year girl students

№	Mark	EG1		EG2		CG	
		quantity	%	quantity	%	quantity	%
1	Excellent	8	40	6	30	4	20
2	Good	7	35	6	30	2	10
3	Satisfactory	5	25	6	30	12	60
4	Unsatisfactory			2	10	2	10

Comparing of inter group indicators showed that the highest level of theoretical preparedness is observed in EG1. In this group mean indicator was 35.85% of correct answers. These results are significantly higher than in CG. In Eg1 this result was 33.65%. In CG we registered only 28.85% of correct answers. Nearly all indicators of "Power-lifting" and "Volleyball" girl students' theoretical preparedness correspond to middle and high levels.

Testing results permit to affirm that EG1 girl students mastered theoretical knowledge in physical education better than EG2 and CG girl students. The best results of testing were demonstrated by "Power-lifting" girl students. It witnesses about higher scope of knowledge and higher quality of these girl students' thinking.

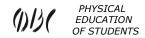
Also we can affirm that EG1 girl students paid more attention to independent work with subject. In their independent classes the girl students see possibility to achieve certain aim of learning cognitive activity in training process. In EG2 group we did not observe interest to subject "Physical education". This group's girl students received theoretical knowledge only from academic material oriented on curriculum. The presented results of the researches witness about insufficient "Physical education" theoretical knowledge of CG girl students.

Absence or low level of girl students' theoretical knowledge in physical education sharply reduce effectiveness of training, weaken interest to physical exercises' practicing; hinder cultivation of students' positive attitude to systemic independent physical culture trainings.

### Discussion

Results of the conducted experiments are confirmed by other researches [29-31, 33-40]. The authors affirm that scope of knowledge about physical culture is in direct proportion to level of motor functioning's mental component. It results in better progress in mastering of skills when practicing physical exercises.

Also we confirmed the data about unsatisfactory level of girl students' theoretical-methodic preparedness in physical education (S. Berezka [2]; N. Moskalenko, T. Sycheva [12]). Results of the researches permitted to supplement the data about effectiveness of physical education trainings' construction by choice of students that facilitate increase of motivation for acquiring and mastering of knowledge (G.V. Vlasov [4], V.A. Temchenko [18]). We supplemented also information that increasing of physical fitness is accompanied by rising of students' theoretical knowledge level (T. I. Dukh[6]).



The data about positive influence of power lifting program on girl students' interest in theoretical course of physical education and improvement of their knowledge of this subject are the novelty of the researches.

#### **Conclusions:**

Results of the researches permit to affirm that author's model of formation of modern HEE girl students' harmonious personalities under influence of power-lifting trainings can be considered in working out of new conception of governmental physical education program. With it, for increasing of cognitive activity and girl students' interest in self education it is necessary to perfect teaching of theoretical section, involving new informational technologies, effective and modern teaching methods.

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#### **Conflict of interests**

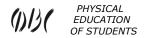
The author declares that there is no conflict of interests.

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