

## OPTIMIZATION OF PHYSICAL EDUCATION AND SPORTS OF STUDENTS WITH DISABILITIES THROUGHOUT THE ENTIRE PERIOD OF STUDY AT THE UNIVERSITY

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**Annotation.** Considered personal and proactive approach to physical education students with different nosologies and ensure close connection processes of personal training and physical development. In the experiment involved 644 students, with 2 and 3 of disability. The level of physical performance determined using the indexes. Identified organizational and methodological priorities of physical education and sports of students. Using the model of physical education allows full integration into the student environment. Students feel more comfortable. Students changing attitude toward themselves, manifested in the appropriate perception, finding camouflage disabilities struggle with her self-presentation. The effectiveness of didactic technology of physical education of students with disabilities in the pedagogical process.

**Keywords:** student, nosology, physical education, sports, personality.

### Introduction

At present there are a lot of scientific researches, devoted to optimization of HEE students' physical education. Authors stress that the task of first priority of students' physical education is health related orientation of classes, based on rational dozing of loads, corresponding to individual indicators of physical condition [1-3, 5, 7-10, 13].

However, in scientific researches no attention is paid to physical education of disabled students. Unfortunately, at present, students' physical education is far from being perfect, while system of disabled students' physical education has not yet been developed at all.

Physical education at HEE, as compulsory academic discipline, for disabled students exists only in declarative form; actually it is not completely oriented on fulfillment of social order – training of young specialist with sufficient health level, required physical culture knowledge and physical fitness up to level, meeting requirements of qualification characteristic of the chosen profession.

Not so long ago, the basis of physical education was conditioned by approach, which determined fulfillment of reduced to average level, single for all normative and requirements, that is in contrast to idea of individual human development. In more progressive HEEs paradigm of education changed and became pointed at personality-oriented, active approach, mastering of norms and values of culture that creates adequate conditions for positive steps in social and physical spheres of an individual.

Achievement of certain level of human development by means of physical culture requires optimal organization of specialized pedagogic process. For disabled students such approach is the only correct, because variety of nosologies, accompanying abnormalities, absence of motivation and demand in motion activity require personal approach to personality, choosing of individual methods for his (her) physical development [6, 12, 20]

At present time, education of disabled youth at HEEs is one of the ways of their integration in society. However, qualified education of youth with different nosologies depends not only introducing of new technologies in HEE educational process, but, to larger extent, on environment, in which students with different nosologies would feel themselves comfortably [4, 11, 14-19].

In first in Ukraine HEE “Open international university of human development “Ukraine”” (University “Ukraine”) there was formed an integrated students' environment, the purpose of which is ensuring of equal access of all society's members, in particular disabled people, to qualified education.

Concrete deeds of University “Ukraine” facilitate socialization of disabled personality and are oriented on improvement of life quality, filling life with new sense, emotions, which condition equal communication, education, amusement, leisure and other forms of normal existence in society [8].

In University “Ukraine”, considering its branches in different regions of country, 45 thousand of students study, from them 1835 – are disabled students that make 4.5% of total quantity. In basic structure of University “Ukraine” (Kiyev) total quantity of students is 10 110, from them 1134 are students with nosologies of eyesight, hearing, supporting-motor system (SMS) and after-effects of infantile cerebral paralysis (ICP), with somatic diseases (SD) and diabetes mellitus (DM) with 1<sup>st</sup> and 2<sup>nd</sup> degree of disability.

The research is a part of “University “Ukraine”” topic – “Development of economic model on the base of disabled students' system of education”; it is also a part of university's topic of Chernigov national pedagogic university named After T.G. Shevchenko “Didactic principles of motion function's formation of people, practicing physical education and sports” (minutes, dt. January 19<sup>th</sup>, 2008); it was approved by coordination council of scientific researches in the field of pedagogic and psychology of Ukraine of National Academy of Pedagogic Sciences of Ukraine (minutes No.3, dt March 25<sup>th</sup>, 2008).

The article presents results of scientific researches of the author, which were devoted to physical education and sports for disabled students at modern higher educational establishment.

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

*The purpose of the research* is to develop and introduce model of health related physical culture and sports provision for disabled students in academic physical education's process.

Pedagogic researches were carried out in University "Ukraine" and its branches (16 branches in different regions of Ukraine) during 2004-2013.

In our work we used well-known methods of research, personality's and activity's approach to physical education of students with different nosologies (eyesight, hearing, SMS, after-effects of ICP, SD and DM of 1<sup>st</sup> and 2<sup>nd</sup> degrees of disability), ensuring of close connection of personality's and physical development.

Many years pedagogic experiment involved 644 participants of 1<sup>st</sup> and 2<sup>nd</sup> degree of disability, from them: 337 boys and 307 girls with different nosologies: eyesight – 46 boys and 39 girls, hearing – 66 boys and 57 girls, supporting motor system (SMS) – 45 boys (SMS) and 45 boys with ICP; 39 girls with SMS and 37 girls with ICP; students with somatic diseases – 79 boys and 87 girls, with diabetes mellitus – 56 boys and 48 girls. Average age of the tested was  $18.7 \pm 6.9$  years old.

### **Results of the research**

Results of our research show that teaching disabled students to motion actions and increasing of motion functioning is a complex comprehensive process, in which general and specific regularities act. This process was carried out on the base of certain organizational-methodic approaches to physical education, principles, rules, scientific and methodic principles of physical culture.

The structure of health related physical culture and sports provision includes three interconnected parts: physical training and sports, physical education and scientific work.

Organizational-methodic techniques of disabled students' physical education in part "Physical training and sports" permitted to receive: 1) psycho-physical characteristic of students and determine the levels of health, physical condition, physical fitness and workability as well as components of personality structure of students with different nosologies: eyesight, hearing, SMS, ICP, SD, DM. We used informative methods of research: health level was studied by methodic of G.L. Apanasenko: level of physical condition (height, body mass, chest circumference, pause in breathing at exhale and inhale, strength of right and left hands, heart beat rate, blood pressure, speed of simple and complex response.

Physical workability level was determined with the help of indices' method: index of chest proportionality, index of body mass, power index, vital index, Ruffiet's test; level of physical fitness; calculation of individual appraisal of sport-pedagogic testing; components of personality's structure; typological characteristics of nervous system, self-estimation, demand in achievements.

1) On the base of analysis of the obtained data we formed groups for physical training by three directions: general training and health related swimming; training in sports circles (aerobics, aqua aerobics, athletic gymnastics, arm-wrestling, basketball, volleyball, football, wrestling, ping-pong, sport swimming, sport dances, chess and checkers) and training in system "Sports for disabled".

Student, who were trained in system "Sports for disabled" were exempted from compulsory attendance of physical education classes, but took active part in inter-HEEs competitions.

2) On the base of received information we differentiated means and methods of disabled students' physical education and solved the task: systemizing of effective means and methods of physical education, considering their influence on students' with different nosologies health, foundation of load's scope and intensity.

We simulated physical education trainings, directed on teaching to motion actions, formation of main motion skills; increasing of motion functioning; elimination of functional disorders in physical development, liquidation of diseases' after effects; increasing of mental workability and so on;

3) We made operative estimation of students' with different nosologies bent to certain orientation of physical trainings. This approach permitted to work out a complex of indicators for operative estimation of students' bent to fulfillment of certain work. We examined self-feeling, mood, activity, psycho-motor level of disabled students.

The obtained data give operative information about health state and students' physical workability, which permits unmistakably choose definite model of training.

4) We worked out various programs of physical education classes on the base of determination of psycho-physical level and foundation of trainings' content and their grounds. We worked out training programs for students with different nosologies: with low and middle physical fitness level.

5) Practical trainings on physical education. The following tasks were solved: promotion of health improvement, increasing of physical fitness and ability to realize it in everyday life, development of compensatory functions.

These tasks were solved by means of fulfillment of different physical exercises and their complexes, considering current health state of students with different nosologies.

6) Selection of students-sportsmen for participation in competitions between faculties, colleges, branches of University "Ukraine", in all Ukrainian sports games among disabled students was also fulfilled.

Besides, we considered facilitating of Para-Olympic and Deaflympic kinds of sports.

7) Also it was stipulated comprehensive examination of disabled students' psycho-physical state with participation of experts (doctors, psychologists).

8) Objective information about health state of students with different nosologies permits to correct physical education programs, to compare dynamic of physical condition's, health, physical workability's physical fitness's and mental progressing during all period of study at HEE.

We also worked out academic program "Physical education" for disabled students.

In the second part of "Physical education" attention was concentrated on formation of knowledge system about physical culture and sports with the help of traditional methods: lectures, seminars, methodic and practical classes, consultations. Topics of the classes corresponded to interests of students with different nosologies: role of physical culture and sports in students' life; means and methods of physical education; methods of development of physical qualities; methods of motion actions' training; adaptive physical education and sports; physical education and sports with different diseases and traumas and other popular topics.

Third part "Students' scientific work" was carried out with the help of students' educational-scientific society "Olympia", which included the most advanced students with different nosologies.

Under guidance of department's teachers students mastered knowledge and skills on conducting of scientific researches, make reports at scientific conferences. They participate in working out of individual charts-diagrams of physical education, programs of independent trainings for students with different nosologies. Attention was accentuated on profound study of physical exercises' influence on definite nosology and working out of recommendations on improvement of health on the base of own experience. Such approach is the most interesting for disabled students.

Thus, organizational-methodic base of health related physical culture and sport provisioning of disabled students' education, which ensures physical condition and readiness to full fledged life activity consists of: theoretical, scientific and practical trainings, which are based on content of curriculum (compulsory and optional) and extra-curriculum classes of general, professional-applied character; on training of psycho-physical perfection, sports trainings, physical rehabilitation, physical daily exercises; didactic component, which stipulates application of means and methods of physical education and popular among students with different nosologies systems of physical exercises and kinds of sports: swimming, aqua aerobics, track and fields, gymnastics, aerobics, outdoor games: volleyball, basketball, football, ping-pong; application of complex of motivational methods of students for regular physical trainings, semester credit, propaganda of physical culture and sports, regular diagnostics of physical condition, annual testing of physical fitness and etc.

#### **Conclusions:**

Health related physical culture and sports provisioning of disabled students' education optimize purposeful pedagogic process, which includes effective means, methods and methodic techniques, adapted to students' nosologies, its influence on their health level and physical workability, physical fitness and mental state during all period of students' studying at HEE in integrity of educational and teaching purposes and facilitating progress of professional skills.

The worked out by us approach has a number of advantages: it not only completely considers earlier scientific fragmentary data about physical condition of disabled youth, but is adapted to psych-physical state of students with nosologies of eyesight, hearing, SMS, after-effects of ICP, somatic diseases and DM and to existing in Ukraine normative base, on which we formed orientation and content of new technology of physical education and sports for HEE students with different nosologies.

Results of the research showed that worked out organizational-methodic approaches to optimization of physical culture- sports activity of students with different nosologies attract attention to three main components of pedagogic process on physical education: physical education (theoretical aspect), physical training and sports (practical aspect) and scientific work of students (theoretical-practical aspect), which have their experimentally grounded didactic sense.

Using this model of physical education and sports of disabled students we observe their complete adaptation to students environment, in which they feel themselves more comfortably than in environment of the same disabled, I.e. the morally equalize with other. Students change attitude to themselves that is manifested in adequate perception, in finding the ways of disguising their disability, of struggling with it, of self presentation.

*The prospects of further researches* are connected with searching of innovative approaches to physical education and sport activity of disabled students, to studying of physical exercises and sport life style's influence on different nosologies of youth.

### References:

- 1 Adirkhaiev S.G. *Visnik Chernigivs'kogo derzhavnogo pedagogichnogo universitetu* [Bulletin of the Chernihiv State Pedagogical University], 2012, vol.102(1), pp. 51-54.
- 2 Bajkina N.G., Kret Ia.V., Silant'iev D.O. *Metodika vkladannia fizichnoyi kul'turi ta sportu invalidiv* [Teaching physical education and sports for the disabled], Zaporozhye, ZSU, 2002, 86 p.
- 3 Bezverkhnia G.V., Maievs'kij M.I. *Pedagogika, psihologia ta mediko-biologicni problemi fizicnogo viovanna i sportu* [Pedagogics, psychology, medical-biological problems of physical training and sports], 2010, vol.1, pp. 10-12.
- 4 Bojko G.N. *Pedagogika, psihologia ta mediko-biologicni problemi fizicnogo viovanna i sportu* [Pedagogics, psychology, medical-biological problems of physical training and sports], 2010, vol.2, pp. 23 - 26.
- 5 Dubogaj O.D. Faktori, iaki viznachaiut' efektyvnist' fizicnogo viovanna studentiv special'noyi medichnoyi grupi [Factors that determine the effectiveness of physical education of students of special medical group]. *Aktual'ni problemi rozvitku rukhu «Sport dlia vsikh» u konteksti ievropejs'koyi integraciyi Ukrayini* [Actual problems of the movement "Sport for All" in the context of European integration of Ukraine], Ternopil, 2004, pp. 270-274.
- 6 Evseev S.P. *Fizicheskaia kul'tura i sport v sovremennom obshchestve* [Physical culture and sport in modern society], 2010, vol.1, pp. 11-17.
- 7 Iermakov S.S., Ivashchenko S.N., Guzov V.V. *Fiziceskoe vospitanie studentov* [Physical Education of Students], 2012, vol.4, pp. 59 - 61.
- 8 Zeleniuk O.V. *Individualizaciia navchal'nogo procesu fizicnogo viovanna na pidstavi kompleksnogo ociniuvannia rukhovoyi pidgotovlenosti ta rivnia somatichnogo zdorov'ia studentiv* [Individualization of educational process of physical education on the basis of complex evaluation of motive preparedness and somatic health of students level], Cand. Diss., Kharkiv, 2004, 21 p.
- 9 Makarova E.V. *Fiziceskoe vospitanie studentov* [Physical Education of Students], 2012, vol.5, pp. 64 - 68.
- 10 Nosko M.O. *Visnik Chernigivs'kogo derzhavnogo pedagogichnogo universitetu* [Bulletin of the Chernihiv State Pedagogical University], 2009, vol.69, pp. 144-150.
- 11 Talanchuk P.M., Kol'chenko K.O., Nikulina G.F. *Suprovid navchannia studentiv z osoblyvimi potrebami v integrovanomu osvith'omu seredovishchi* [Support education of students with disabilities in integrated educational environment], Kiev, VHSPO "NAI Ukraine", 2004, 130 p.
- 12 Tomenko O., Lazorenko S. *Slobozhans'kij naukovo-sportivnij visnik* [Slobozhansky scientific and sport bulletin], 2010, vol.2, pp. 17-20.
- 13 Shark-Eckardt Mirosława, Kuska Mikhalina, Zukovska Khanna, Iermakov S.S. *Fiziceskoe vospitanie studentov* [Physical Education of Students], 2012, vol.3, pp. 136 - 144.
- 14 Shevcov A.G. Sistemnij pidkhid do organizaciyi integrovanogo navchannia studentiv z obmezheniami zhittiedial'nosti u vishchikh navchal'nikh zakladakh [The systems approach to integrated education of students with disabilities in the life of higher education]. *Social'no-pedagogichna rehabilitaciia v zakladakh osviti: problemi ta perspektivi* [Social pedagogical rehabilitation of educational institutions: problems and prospects], Khmelnytsky, HIST University "Ukraine", 2009, pp. 22-24.
- 15 Cheatham G.A., Smith S.J., Elliott W., Friedline T. Family assets, postsecondary education, and students with disabilities: Building on progress and overcoming challenges. *Children and Youth Services Review*. 2013, vol.35(7), pp. 1078–1086. doi:10.1016/j.chilyouth.2013.04.019.
- 16 Felton A., Holliday L., Ritchie D., Langmack G., Conquer A. Simulation: A shared learning experience for child and mental health pre-registration nursing students. *Nurse Education in Practice*. 2013, vol.13(6), pp. 536–540. doi:10.1016/j.nepr.2013.04.003.
- 17 Humphrey N., Lendrum A., Barlow A., Wigelsworth M., Squires G. Achievement for All: Improving psychosocial outcomes for students with special educational needs and disabilities. *Research in Developmental Disabilities*. 2013, vol.34(4), pp. 1210–1225. doi:10.1016/j.ridd.2012.12.008.
- 18 Pavlović M., Žunić-Pavlović V., Glumbić N. Students' and teachers' perceptions of aggressive behaviour in adolescents with intellectual disability and typically developing adolescents. *Research in Developmental Disabilities*. 2013, vol.34(11), pp. 3789–3797. doi:10.1016/j.ridd.2013.07.035.
- 19 Robey K.L., Minihan P.M., Long-Bellil L.M., Hahn J.E., Reiss J.G., Eddy G.E. Teaching health care students about disability within a cultural competency context. *Disability and Health Journal*. 2013, vol.6(4), pp. 271–279. doi:10.1016/j.dhjo.2013.05.002.
- 20 Stankiewicz Blazej, Cieslicka Mirosława, Kortas Jakub, Iermakov S.S. Long-distance running as a social phenomenon // *Physical Education of Students*. 2012, vol.4, pp. 140 - 149.

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