

UDC 796.41-056.26-053.2

ON THE QUESTION OF THE FEASIBILITY OF INTRODUCING THE VARIABLE MODULE "FITNESS" IN THE PROCESS OF PHYSICAL EDUCATION OF CHILDREN WITH HEARING IMPAIRMENTS

Roman Ivanitsky¹, Alla Aleshina¹, Alexander Bychuk¹

¹Lesya Ukrainka Eastern European National University, city Lutsk, Ukraine, aleshina1012@gmail.com

<https://doi.org/10.29038/2220-7481-2018-02-59-63>

Abstracts

Novelty. Adapted Physical Education is a new branch in science and educative field. It needs a content development and improvement by finding new forms and methods of work with special needs children. Analysis of science and teaching literature & Internet sources, studying of work of special schools for children with hearing disorders shows that content of physical training programs for such children is undeveloped. **Purpose of investigation** – to study the possibility of implementation of fitnesses in physical training of children with hearing disorders. The next methods of investigation were used: analysis of science and methodical literature and Internet sources, synthesis, filing, specification. **Results of Investigation.** Disorders of acoustic analyzer reflect on vestibular and kinetic functions and provide delay of vertical position formation, muscular dystonia, instability, arrested development of space orientation, difficulties in motor differentiation and performance of precise movements. Due to this fact the implementation of special pedagogical system in school for children with indicate disorders. Such system could ensure corresponding level of physical education. **Conclusions.** The presence of contradictions between psychological, social and physical demands and possibilities of children with hearing disabilities helps us to define the scientific support of effective ways of correction of motor disorders by methods of adapted physical education such as variable module «Fitness» and its types «Step-aerobics», «Fitball-gym», «Pilates» and «Stabilisation». The special equipment used for this: pulley weights trainer «Butterfly» pulley weights «Mini Bands», stretch bands, pilates hoops, step-platforms, fitballs, balance platforms.

Key words: motor activity, adapted physical education, hearing disorders, variable module, elements of fitness.

Роман Іваніцький, Алла Альошина, Олександр Бичук. До питання доцільності впровадження варіативного модуля «фітнес» у процес фізичного виховання дітей із вадами слуху. **Актуальність.** Адаптивне фізичне виховання – новий напрям у науковому та освітньому просторі, який потребує постійного розвитку й удосконалення, за допомогою пошуку нових форм і методів роботи з дітьми, котрі мають різні вади в індивідуальному розвитку. Аналіз наукової та науково-методичної літератури, Інтернет-джерел й ознайомлення з практикою роботи спеціальних шкіл для дітей із вадами слуху дає підставу стверджувати, що зміст програм із фізичного виховання для цієї категорії школярів є недостатньо розробленим. **Мета дослідження** – вивчити можливість впровадження елементів фітнесу в процес фізичного виховання дітей із вадами слуху. У процесі дослідження ми використовували **такі методи**, як аналіз науково-методичних літературних та Інтернет-джерел, синтез, систематизація, конкретизація. **Результати дослідження.** Ураження слухового аналізатора позначається на роботі вестибулярного й кінестетичного апаратів, що супроводжується затримкою формування прямостояння, порушенням м'язового тону та здатності підтримки рівноваги, недорозвиненням просторової орієнтації, утрудненнями в диференціації рухових відчуттів і виконанні складно-координаційних рухів. У зв'язку з цим важливого значення набуває впровадження в спеціальній школі для дітей означеної нозології відповідної системи педагогічних заходів, яка б забезпечувала належний рівень розвитку фізичних якостей у поєднанні з корекційно-оздоровчою спрямованістю процесу адаптивного фізичного виховання. **Висновки.** Наявність суперечностей між психологічними, соціальними й фізичними потребами дітей із вадами слуху та їхніми можливостями визначає пошук і наукове обґрунтування ефективних шляхів корекції наявних у них рухових порушень засобами адаптивного фізичного виховання, зокрема впровадженням варіативного модуля «Фітнес» із використанням таких його видів, як «Степ-аеробіка», «Фітбол-гімнастика», «Пілатес» та «Стабілізація», і відповідного обладнання, зокрема еспандера-тренажера «Метелик», еспандера «Mini Bands», гумових стрічок, обручів для Пілатесу, степ-платформ, фітболів, балансувальних платформ.

Ключові слова: рухова активність, адаптивне фізичне виховання, вади слуху, варіативний модуль, елементи фітнесу.

Роман Іваніцький, Алла Алёшина, Александр Бычук. К вопросу целесообразности внедрения вариативного модуля «фитнес» в процесс физического воспитания детей с недостатками слуха. **Актуальность.** Адаптивное физическое воспитание – новое направление в научном и образовательном пространстве, которое

требует постоянного развития и совершенствования путем поиска новых форм и методов работы с детьми, имеющими различные недостатки в индивидуальном развитии. Анализ научной и научно-методической литературы, Интернет-источников и ознакомление с практикой работы специальных школ для детей с недостатками слуха позволяет утверждать, что содержание программ по физическому воспитанию для этой категории школьников недостаточно разработанное. **Цель исследования** – изучить возможность внедрения элементов фитнеса в процесс физического воспитания детей с недостатками слуха. В процессе исследования мы использовали **такие методы**, как анализ научно-методических литературных и Интернет-источников, синтез, систематизация, конкретизация. **Результаты исследования.** Поражение слухового анализатора сказывается на работе вестибулярного и кинестетического аппаратов, сопровождается задержкой формирования прямохождения, нарушением мышечного тонуса и способности поддержания равновесия, недоразвитием пространственной ориентации, затруднениями в дифференциации двигательных ощущений и исполнении сложнокоординационных движений. В связи с этим важное значение приобретает внедрение в специальной школе для детей указанной нозологии соответствующей системы педагогических мероприятий, обеспечивающей должный уровень развития физических качеств в сочетании с коррекционно-оздоровительной направленности процесса адаптивного физического воспитания. **Выводы.** Наличие противоречий между психологическими, социальными и физическими потребностями детей с недостатками слуха и их возможностями определяет поиск и научное обоснование эффективных путей коррекции имеющихся у них двигательных нарушений средствами адаптивного физического воспитания, в частности внедрением вариативного модуля «Фитнес» с использованием таких его видов, как «Степ-аэробика», «Фитбол-гимнастика», «Пилатес» и «Стабилизация», а также соответствующего оборудования: эспандера-тренажера «Бабочка», эспандера «Mini Bands», резиновых лент, обручей для Пилатеса, степ-платформ, фитболов, балансировочных платформ.

Ключевые слова: двигательная активность, адаптивное физическое воспитание, недостатки слуха, вариативный модуль, элементы фитнеса.

Introduction. Modern society is known to be developing on the basis of the ideas of humanization involving the disclosure and implementation of the creative potential of each person, including those with developmental disabilities. Nowadays there is a negative trend towards increasing the number of people with special needs. The reasons for this are both external and internal factors [1; 5; 6; 10; 12].

Children physical training with hearing impairments is an integral part of the process of education and upbringing. The purpose of adaptive physical education is the formation and development of motor activity, physical and mental abilities, which ensure the adaptation of man to his state of health, environment, society and various activities. With proper organization and a special approach to this process, the classes contribute to the effective mastering of the curriculum, the formation of a developed individual, and in the future – its socialization and successful mastery of modern professions [1; 2; 5; 11].

The I. M. Lyakhova study [10] emphasizes that democratic and economic transformations that took place in Ukraine at the beginning of the 21st century led to the need of significant changes in the educational system, which was embodied in the State National Program "Education (Ukraine of the XXI Century)", in the National doctrine on the development of Ukraine's education in the 21st century, in the National program "Children of Ukraine" and in the other official state documents. These documents point out that children with psychophysical development peculiarities require special care; there is a need to update the content of education, to introduce new approaches, forms, methods of teaching and education that would meet the needs of development of the personalities of these children, to contribute to the disclosure of talents, their mental and physical abilities; to prioritise ensuring their full-fledged life, optimal conditions for maximum social and labor rehabilitation.

All of mentioned above lets us suggest of the creation of favorable conditions for development of new pedagogical technologies and approaches to the organization of training and education of children with hearing impairments. The main purpose of the "Physical Culture" subject for the deaf is to strengthen health, physical development and correction of its violations, to form the foundations of a healthy lifestyle; mastering of motor skills; development of motor qualities (strength, speed, endurance, etc.); education of a positive attitude to physical activity; moral, volitional qualities (courage, perseverance, etc.); development of communication skills [1; 5; 10; 11].

The purpose of the research is to explore the possibility of introducing fitness elements into the process of physical education of children with hearing impairments.

Research methods. In the process of research, we used the following methods: analysis of scientific – methodological literary and Internet sources, synthesis, systematization, specification.

The results of the reseach. Analysis of literary sources [4; 6; 8; 10] indicates that loss of hearing, especially at an early age, has a negative impact on the formation of the child's personality, the development of functional systems and impedes its social and psychological adaptation. The study of changes in functional systems that interact and affect the auditory analyzer is essential not only for diagnosing the disease and its complications, but for justifying and choosing an effective method for correction of motor disorders in children with hearing impairments.

The conducted analysis of scientific researches showed that the motor area disorders of children with hearing impairments are interconnected and caused by general reasons: the degree of functioning of the vestibular apparatus, the structure of the hearing impairment, lack of speech function, reduction of the volume of received information, and the state of the motor analyzer [3; 5; 6; 10].

In the majority of children with hearing impairments, there is an insufficient level of formation of coordination abilities, which are the basis of everyday motor skills and abilities, in connection with which their correction and development in this category of children have a great importance for adaptation and realization in society [5; 7; 9; 10].

The lesion of the auditory analyzer affects the work of the vestibular and kinesthetic apparatus, accompanied by a delay in the formation of the upstanding, a violation of muscle tone and the ability to maintain balance, underdevelopment of spatial orientation, difficulties in differentiation of motor sensations and the implementation of complex coordination movements. In this regard, becomes very important the introduction of a proper system of pedagogical measures for the children of the indicated nosology, which would ensure the proper level of development of physical qualities in conjunction with the correctional-well-being orientation of the process of adaptive physical education. [5; 6; 9; 11].

The purpose of the subject "Physical Culture" is realized by applying an integrated approach to solving general educational and specific correctional and developmental problems.

The state standard requirements of the program for physical culture for the deaf do not differ from the requirements of the mass educational institutions.

The program of physical culture is characterized by a focus on the implementation of the principle of variability. The curriculum is based on a modular system. It contains an invariant and a variational component. The educational institution forms content of the variable component independently from the modules offered by the curriculum. At the same time, almost every kind of sport can be represented as a variant module, as physical education specialists can develop their variational modules for this program [5; 10; 11].

The variational module consists of the three sections. The section "Content of the educational material" includes theoretical information, special physical training and physical education, which are typical for this module, training standards and equipment list. The section "State requirements for the level of general education of the deaf" focuses on the qualitative assimilation of knowledge, abilities and skills of the submitted material. The section "Direction of Correctional and Developmental Work and Expected Results", in particular, provides for work on the development of deaf students' ability to understand and reproduce oral speech, the formation of vocabulary resources at physical education classes. [1; 2; 10; 11].

The criteria for selecting the variational modules are: availability of material and technical base, regional sports traditions, staffing and the will of students. The will of students is determined by compulsory written interview at the end of the school year [1; 2; 11].

At the present phase of society's development, there is a need to introduce in the process of adaptive physical education those sports that are in demand by the time: fitness and tourism.

So, in our opinion, the implementation of the variable module "Fitness" in the educational process is more realistic, since equipment for conducting lessons is quite diverse, does not require large areas, are easy to use and to afford. Particular attention deserves such means: expander «Butterfly», expander «Mini Vands», coordination staircase, Pilve's hoop, step-platform, balancing platforms, rubber ribbons for fitness, fitness set «Trening Set». We propose to introduce such variants - "Step-aerobics", "Fitball-gymnastics", "Pilates" and "Stabilization" to the variant "Fitness".

In fact such kinds of sport as tourism and fitness which are quite popular nowadays should be included into the process of an adaptive physical education on the current modern stage of the development of society.

Hence, to our mind implementation of variation module “Fitness” into the studying process is more real, as equipment for conducting classes is quite different, doesn’t require big squares, fairly easy to use and available at prices. Such equipments as : espander “Butterfly”, espander “Mini Bands”, coordination ladder, pilates hoop, step platform, balancing platform, rubber ribbons, ”Trening set” for fitness – deserve a special attention.

We offer to add new species of variation module “Fitness” as –“ Step aerobic”, “Fitbol gymnastic”, “Pilates” and “Stabilization”.

Implementation of variation module is also due to the fact that investigation process proved that comprehensive focused physical exercises (aerobic complex including equipments and without , step-jogging, game tasks and relay race), exercises for formation and strengthening the right posture and statico-dynamical are effective means of correction and development the child’s motor field with hearing impairments. As the matter of fact, implementation into the reality of children with hearing impairments effects on growth of interest of physical culture, activation of movement activity , creation and expansion of the base of movement and speech experience , which plays a pivotal role at mastering of new motor actions .

Taking into account that the class density isn’t higher than 12 people , a circle training with the use of those equipments could be used as an option plus exercises which affect the development of vertical body firmness and static balance .

So that’s why we offer to make up the technology of the development of the motor field of pupils with hearing impairments and implement them into the studying process with the help of fitness which affects on the increase of motor activity and socialization during the modern life rhythm.

Conclusion. Contradictions between psychological, socialistic and physical needs of children with hearing impairments and their possibilities indicates search and scientific explanation of the effective ways of the current motor disturbances correction by using the adaptive physical education , in addition by implementing varied module “Fitness”by using; “Step-aerobic”, “Fitbol-gymnastic”, “Pilates” and “Stabilization” and appropriate equipments : simulator “Butterfly”, espander “ Mini Bands”, rubber ribbons, a pilates hoop, step platform , fitbol, balanced platform .

Perspectives for further reaserch. For the development, realization and implementation into the process of physical education the varied module “Fitness”, need very carefully learn the problem of implementation of modern information technologies into the studying process of children with hearing impairments.

References

1. Belikova N., Indyka S., Ulyanytska N., Podubinska S., Krendelieva V. (2017). Perspectives for Implementation of New Variative Modules of «Physical Culture. Grades 5–9» Training Program. *Fizychnye vykhovannia, sport i kultura zdorovia u suchasnomu suspilstvi: zb.nauk.pr. SNU im. Lesi Ukrainky. Lutsk: SNU im. Lesi Ukrainky*, no. 3 (39), 140–146.
2. Aloshina A., Bichuk O., Ivanickij R. (2018). Vprovadzhennya elementiv fitnesu u proces fizichnogo vihovannya ditej z vadami sluhu [Introduction of elements of fitness is in the process of physical education of children with hearing impairment]. *Fizichna aktivnist i yakist zhittya lyudini: zb. tez dop. II Mizhnar. nauk.-prakt. konf. (22–24 trav. 2018 r.)*. Luck : Shidnoyevrop. nac. un-t im. Lesi Ukrayinki, 54.
3. Vashuk L., Tsos, A., Dudich A., Yurchenko I. (2015). Realizaciyi individualnih fitnes-program u sistemi samostijnih zanyat starshoklasnic fizichnimi vpravami [The realization of the individual fitness programs in the system of doing exercises independently for high school girls]. *Fizychnye vykhovannia, sport i kultura zdorovia u suchasnomu suspilstvi: zb.nauk.pr. SNU im. Lesi Ukrainky. Lutsk: SNU im. Lesi Ukrainky*, no. 4 (36), 29–38.
4. Goncharova N. M. (2018). Dosvid vprovadzhennya zdorov’yaformuyuchih tehnologij v sistemi osviti ditej [Experience of introduction of healthforming technologies is in the system of education of children]. *Materiali I Vseukrayinskoyi elektronnoyi naukovopraktichnoyi konferenciyi z mizhnarodnoyu uchastyu*. K.: NUFVSU, 121–123.
5. Evseev S. P. (2007). *Teoriya i organizaciya adaptivnoj fizicheskoy kultury [Theory and organization of adaptive physical culture]: ucheb.: v 2 t. M., 448.*
6. Ivanickij R., Aloshina A., Bichuk O. (2017). Rozvitok ta korekciya ruhovoyi sferi ditej iz vadami sluhu v procesi fizichnogo vihovannya. Suchasnij etap [Development and correction of the motor sphere of children with hearing impairment in the process of physical education. the modern stage] *Molodizhnyj naukovij visnik Shidnoyevropejskogo nacionalnogo universitetu imeni Lesi Ukrayinki*, vyp. 27, 98–102.
7. Kashuba V., Storozhik A., Demchuk S. (2014). Harakteristika vertikalnoyi stijkosti tila lyudini i yiyi osoblivosti v shkolyariv iz porushennyami sluhu [Characteristics of vertical stability of the human body and its

- features in pupils with hearing impairment]. *Molodizhnij naukovij visnik Shidnoyevropejskogo nacionalnogo universitetu imeni Lesi Ukrayinki*, vyp. 16, 89–93.
8. Kashuba V. O., Richok T. M. (2017). Populyarizaciya suchasnih form ruhovoyi aktivnosti sered shkolyariv z sensornimi porushennyami, shlyahom vikoristannya multimedijnih tehnologij [Popularization of modern forms of motive activity is among schoolchildren with sensory violations, by the use of multimedia technologies]. *Visnik Prikarpatського universitetu. Seriya «Fizichna kultura»*, no 25–26, 154–160.
 9. Kashuba V. O., Maslova O., Richok T. (2018). Tehnologiya korekciyi fizichnogo stanu shkolyariv z vadami sluhuv procesi fizichnogo viovannya [There is technology of correction of bodily condition of schoolchildren flawed in the process of physical education]. *Naukovo-teoretichnij zhurnal «Teoriya i metodika fizichnogo viovannya i sportu*, no 1, 42–48.
 10. Lyahova I. M. (2005). Korekciyno-pedagogichni osnovi fizichnogo viovannya ditej zi znizhenim sluhom (teoretiko-metodichnij aspekt) [Correctional and pedagogical bases of physical education of children with reduced hearing (theoretical and methodical aspect)]: monografiya. Zaporizhzhya: GU «ZIDMU», 506.
 11. Sheremet B. G., Forostyan O. I., Leshij N. P., Malij V. M. (2014). Fizichna kultura. Navchalni programi dlya 5–9 (10) klasiv specialnih zagalnoosvitnih navchalnih zakladiv dlya gluhih. K.: Ministerstvo osviti i nauki Ukraini, 53.
 12. Yurchenko O. A. (2012). Obruntuvannya programi formuvannya motoriki ditej molodshogo shkilnogo viku z poslablenim zorum v procesi fizichnogo viovannya [Substantiation for the program of motility formation of junior school children with impaired vision in the process physical education]. *Fizychne vykhovannia, sport i kultura zdorovia u suchasnomu suspilstvi: zb.nauk.pr. VNU im. Lesi Ukrainky. Lutsk: VNU im. Lesi Ukrainky*, no. 4, 209–214.

Received: 16.05.2018.