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## EFFECTIVENESS OF USING INFORMAL EDUCATION FOR YOUNG PEOPLE TO OBTAIN CERTAIN KNOWLEDGE

*Zhydenko Alla Oleksandrivna*

Doctor of Biological Sciences, Professor of the Department of Biology, Professor of the Department of Biological Foundations of Physical Education, Health and Sports, T.H. Shevchenko National University «Chernihiv Colehium»

*Papernyk Viktoriia Viktorivna*

Candidate of Biological Sciences, Associate Professor of the Department of Biology, Associate Professor of the Department of Ecology, Geography and Environmental Management, T.H. Shevchenko National University «Chernihiv Colehium»

Classes in secondary and higher education institutions, due to constant air alerts, in many cities of Ukraine are held in a mixed or remote learning format, so young people do not receive a sufficient amount of medical and biological knowledge to maintain their health. There is an opinion that information can be obtained from the Internet, but for this you need to have enough basic knowledge of age and general physiology to independently analyse the acquired information for reliability.

According to Article 8 of the Law of Ukraine on Education, in addition to formal education, there is informal education, which is obtained, as a rule, according to educational programs and does not provide for the award of educational qualifications recognized by the state at the level of education, but may end with the award of professional and/or partial educational qualifications [3, p.8]. But we are more interested in informal education (self-education), which involves the self-organized acquisition of certain competencies by a person, in particular during everyday activities related to professional, social or other activities, family or leisure [3, p.8]. The author T. O. Gubanova traces the domestic division of education into three types, distinguishing informal education among them, which correlates with the concept of a new model of European education and is contained in the conclusions of the Lisbon Summit on EU education policy [1, p.58]. Among the characteristic features of informal education, the author identified the following: continuous implementation of this education throughout life, which does not involve its passage in an educational institution and is not confirmed by an appropriate document; but includes a wide range of mechanisms for obtaining, although it is not mandatory [1, p. 59]. But it is necessary to draw attention to the identification of the shortcomings of informal education [4, p. 364], namely: the undisciplined nature of learning makes the learner less immersed in other fruitful learning methods; the Internet contains a lot of misinformation, which can lead to the assimilation of incorrect or even harmful information by learners, which subsequently creates problems and does not allow a person

to feel sufficient self-confidence due to informal knowledge; does not create an atmosphere that would help a person improve communication and social interaction skills; provides for a flexible study schedule, which forces learners to procrastinate; young people learn the material only through experience or practice; until then, they often have to face unpredictable results; This type of education is less effective due to the unreliable learning resources it offers, lower motivation to learn, and the lack of a teacher and guidance to help correct mistakes [4, p. 364]. In our opinion, informal education has more positive features when there is the use of specialized magazines, or participation in meetings of various separate groups according to interests on the Internet, for example, the group «Medical and Biological Problems of Physical Education and Sports», which has more than seven thousand regular visitors. Unfortunately, modern students cannot always understand the practical significance of the information of lecture material on a particular discipline, so when they cannot solve the problem that has arisen, they begin to actively search for information on the Internet and may come across unreliable information, which can lead to undesirable consequences. Therefore, specialized interest groups play an important role in the informal education of young people.

The purpose of the work is to verify the effectiveness of informal education on the example of obtaining knowledge about the beginning of motor activity of a future child in the group «Medical and biological problems of physical education and sports». On the pages of this group (Facebook) in the section «Motor activity: advice from a psychophysicologist» the author (Zhydenko A.O.) shared information [2] that future parents need to know about how a child's movement arises and is formed. At the beginning of embryogenesis (on the 7th day after fertilization), the trophoblast (embryo shell) secretes proteolytic enzymes that dissolve the endometrium of the uterus and the embryo is immersed in it, it is actively developing, although it is several millimetres long. Spontaneous muscle contractions begin in it in the uterine cavity at 7-8 weeks of pregnancy (embryological term from conception), the length of the embryo reaches 9 mm, it has upper and lower limbs, the formation of the brain and parts of the nervous system continues, reflex activity appears. At 12 weeks, the future baby moves its limbs quite actively, swims in the uterine cavity, but its movements are not felt, because it is still very small and practically does not touch the walls of the uterus. At 15-16 weeks, the fetus is already about 11-14 cm long, makes many movements with its head, mouth, arms, hands, legs and feet. The small organism forms its own movement with the help of nerve feedback. Muscle contractions, which were observed in the early stages of embryonic development, are necessary for the normal development of joints and regulation of limb growth. In the development of muscles, their innervation plays a significant role, when nerve fibers penetrate the myotomes and limb embryos. If the myotube does not receive innervation, its further development stops, but at the same time, the motor neurons of the anterior horns of the gray matter of the spinal cord, whose axons have not come into contact with the muscle, die. The formation of the myelin sheath of nerve fibers depends on the quality and quantity of movements that the baby makes. During his movements, he increasingly touches the walls of the uterus, so fetal movements are felt from 20-21 weeks in women giving birth for the first time and from 18-19 weeks in women who will give birth again. 2-3 months before birth, the fetus, reacting with clear movements to sudden sound irritation, gradually reduces its motor reaction when the sound is repeated, and then stops moving (i.e., the unconditioned protective reflex is actively manifested). Thus, in the body of a child who has not yet been born, the development of physiological systems that ensure its high-quality functioning, including the correct performance of various physical exercises in the future, is clearly controlled. In addition to muscle contractions that ensure the functioning of physiological systems necessary for the life of a newborn, skeletal muscles begin to contract, but their mass is 37 times less than that of an adult and the development of different muscle groups occurs at different times. Limb movements in a newborn are disordered, constant activity of skeletal muscles is characteristic, even during sleep, which is a stimulus for the rapid growth of skeletal muscles, especially the shoulder girdle and arms, probably in order to hold objects with your hand in the second month from birth, and in the third to try to grab objects. Even earlier, the baby begins to move his head: first lateral movements, then raises his head, in the second month he reacts to sound by turning his head. As a result of active movement of the hands, the formation of the myelin sheath

of the wedge-shaped bundle of Burdach (ascending, spinal cord conduction pathway), which carries signals from the receptors of the upper extremities, the upper part of the body, occurs much faster than the thin bundle of Hall, which carries signals from the proprioceptors of the muscles, tendon receptors, tactile receptors of the lower part of the body. Myelination of the spinal nerves gives a gain in the speed of conduction of action potentials (AP) from 0.5 m/s to 60-120 m/s. Regulation of motor acts (secondary afferentation), vegetative functions, maintenance of homeostasis, enantiosis (constancy of functions) is carried out using feedback, when the output signal about the state of the object and regulation is directed to the input of the system. For the fetus and newborn, an orthotonic posture is characteristic, which is maintained reflexively (flexor tone prevails), therefore the spine of the newborn has no bends. An increase in the volume and diversification of motor activity by the end of the first year of the child's life leads to further improvement of the physiological systems of the body, in accordance with the basic principles of the body as a biocybernetic system, in particular - «Unity of structure and functions», that is, the performance of any function is possible only in the presence of a certain structure, the active functioning of which will lead to a change in the initial structure. An example is the formation of spinal curves: cervical lordosis (holding the head), thoracic kyphosis (sitting), and with the beginning of walking, lumbar lordosis and sacral kyphosis are formed, which is completed at 6-7 years of age.

Thus, future parents who do not have formal biological education can, through informal education, obtain knowledge that will help them correctly interpret all changes in the newborn's body. The emergence of new innovative directions in the education system of Ukraine, in particular informal education, through the implementation of international standards has regulatory and legal support and therefore requires support and development.

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### ПЕРШИЙ ОБЛАСНИЙ ОНЛАЙН-ТУРНІР «ЕФЕКТИВНА СІМЕЙНА ФІЗИЧНА КУЛЬТУРА»: ОСОБЛИВОСТІ ПРОВЕДЕННЯ

**Аксьонова Олена Петрівна**

кандидат педагогічних наук, завідувач кафедри реабілітаційної педагогіки та здорового способу життя комунального закладу «Запорізький обласний інститут післядипломної педагогічної освіти» Запорізької обласної ради, м. Запоріжжя

В термін 02-21.12.2024 р. проведено Перший обласний онлайн-турнір «Ефективна сімейна фізична культура» (далі – Турнір). Турнір організований відповідно до плану роботи науково-дослідної лабораторії «Науково-методичні засади створення безпечного і здорового освітнього середовища у новій українській школі» на 2024 рік за напрямом «Просвітницька діяльність», а також в межах реалізації дослідницької діяльності з проблеми створення безпечного і здорового освітнього середовища [1].

Турнір проводився у дистанційному форматі в п'ять турів, з дотриманням вимог, затверджених рішенням Ради оборони Запорізької області від 13.10.2023 № 167 щодо