

Original Article

The paradigm of health maintenance at higher education institutions as an important component of human development in terms of modernity

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Abstract:

The necessity of increasing the role of the paradigm of health maintenance at universities for sustainable human development is substantiated in the article. The content of the modern principle of human development, according to which the economy exists for the development of people, not the people for economic development is revealed. The analysis of the term "human development" in the biological, psychological and social aspects is presented in the article. The essence of periods and the concept of human development in the light of a health maintenance principle are revealed. The authors have found factors that affect the formation of human development as an entire process. This is an internal development program, which is genetically embedded in the body and is inherited from parents and external factors of biological, cultural and social impact on the human body. Based on the analysis of library resources and our own teaching experience we have presented some mechanisms to improve the educational process in higher education, the essence of the content of basic methodological aspects and perspectives to design the process of health maintenance training. The ways of improvement and development of human nature, the formation of human potential in the light of health maintenance paradigm in the educational activities of higher school on the basis of actual of data obtained during a stating stage of pedagogical experiment. We have supposed that in the process of health maintenance training a concept "competence" should be attributed to such scientific concepts as "capacity", "ability", and "skill". The "competence" is closer to the concepts of "know how" than "I know that." The authors presented a relationship of competences during the health maintenance training and suggested two ways of its development. The competence of health maintenance is declared as complex competencies updating that define the content of this competence. Five groups of health maintenance competences were defined: competences based on the physiological capabilities of the human body; competences based on the human capacity to perform certain tasks, i.e. the ability to learn; competences based on the requirements and psycho-physiological characteristics of future professional activity; competences based on the ability to use a variety of health technologies; competences based on the need to improve one's lifelong knowledge on health maintenance.

Key Words: human development, human potential, economic development, paradigm of health maintenance, competence, higher education, students.

Introduction

Health maintenance and its development at all stages of a human evolution is a strategic task of any nation. Nowadays the base of civilization culture is primarily includes the ideas about universe community of people, the unity of a person, society and nature, their spiritual and physical harmony. Life and health are defined as the highest human values. They are indices of civilization and reflect the overall socio-economic development of society. However, the rapid transformation of the socio-economic development of society and a person's lifestyle have an impact on an individual and lead to profound changes in his/her physical, mental and spiritual states, while living conditions do not always provide reasons and necessary social efforts among young people to arise. As a result, we have to state that there are some negative trends of health deteriorating among young people in Ukraine and is evident by the fact that the health care system is unlikely able to optimally solve the problem of health improvement [5, 6].

In this regard, today, progressive educational community set a new challenge – the paradigm of health maintenance should become an important component of the human development. The priority is to develop a responsible attitude to their own health for all, without exception, citizens of Ukraine, because it is one of the key factors that determine a decisive role in creating a Nation's healthy future, and developing human potential.

Health maintenance technologies implementation in educational process was investigated by Nosko M. [9], Dubogay A. [5], Zavydivska N. [5, 6], Khanikiants O. [5], and others. Vasilchenko V. [2], Grinenko A. [2], Grishnova O. [2], Kerb L. [2], Ilyash L. [7], S. Hrynkevych S. [7], Bedy K. [3], Kutsenko V. [8], Udovychenko

V. [8] and others devoted their studies to the problems of human development and economic growth. Despite the large amount of research it still remains a poorly studied problem of a health standard as an opportunity for economic growth and human development improving. In this aspect, we believe that the role of education in ensuring of this development is underestimated that points out at the relevance of the problem research.

Material and methods

The study was conducted during 2007-2008. The survey of graduates of all ages has been done to assess their lifestyle. The need for research is explained by the social significance of society's social transformation that, during the period of professional activity, could affect lifestyle changes among people. This concept, in our opinion, is an important fact when assessing human development. Medical officers, economic and technical employees and workers in sphere of physical education and sports were engaged to the experiment. Generally, 368 people aged from 25 to 50 years took part in the experiment at this stage.

To achieve the objectives, the following **methods** were applied: theoretical analysis and synthesis of philosophical, psychological, educational, teaching and professional scientific literature, and standard documents in the field of education and healthcare, Internet resources, pedagogical experiment.

Objectives

Rationale for increasing the role of the health maintenance paradigm at university for sustainable human development. To achieve this object the following **tasks** were set:

1. To analyze the term "human development" in the biological, psychological and social aspects; to discover the essence of human development through the health maintenance paradigm;
2. To define mechanisms of the educational process improvement in higher education based on the health maintenance paradigm;
3. To describe the content nature of the basic methodological aspects of students' health maintenance learning based on the analysis of the obtained experimental data;
4. To identify the characteristics of the human potential formation on the basis of health maintenance through the formation of the youth's competence on their healthcare.

Results

Ancient philosophers argued that people should be seen not only as a means to increase production, but also as the most important factor of society's development. The study of human development is aimed to establishment of certain changes within a specified time, occurring in the structural and functional levels of the human body. Human development, in our view, should be considered within the scientific field, which covers various aspects of a person's abilities (achievements). At the heart of the modern concept of human development is the principle according to which the economy exists for the development of people, not the people for economic development. Human development is a goal and criterion of social progress. No economic growth can contribute to social progress if vital human capabilities are not provided: to live a long and healthy life; to acquire, expand and update knowledge; to have an access to livelihood providing a decent standard of life [2, 8, 10, 11].

The design process of students' health maintenance learning is a relatively new trend in teaching science, which requires the development of special teaching methods and technologies. Health maintenance is, in fact, the process of improvement and development of human nature, a means of human potential creating [4, 6]. The issue of health maintaining is a complex phenomenon, as it covers all the processes in such a complex system as a human body. A human's working capacity also depends on his/her health reserves, potential and possibilities. The thesis defining the concept of human development is the provision that people do not need endless high income to provide a decent standard of living. It is necessary to ensure proactive measures to prevent poverty, unemployment, and loss of health [2, 3, 7].

A human development index is an integral index calculated each year for interstate comparisons to determine the standard of living, literacy, education and longevity as the main characteristics of the human potential of the area studied by the United Nations. Thus the key showings included in compiling the index are:

- expected lifetime;
- literacy rate of the population;
- the standard of living estimated by GNI per capita at purchasing power parity (PPP) in US dollars.

According to this index, our country ranks 83 among 187 countries in the world and is among the countries with high standards of human development. It is noted that such showing is due to the high level of public education in our country. [12]

Our country has made a progress in the ranking of human capital, which is annually defined by The World Economic Forum. Thus, according to the sum of showings, among which the leading one is, again, the level of education and longevity of the population, Ukraine overcame 32 positions and moved in the ranking from the 63rd position (in 2014) to the 31st among 124 countries. The leading positions are taken by Finland, Norway and Switzerland; Yemen and the African countries of Chad and Mauritania are at the bottom of the list.

To adequately understand the organization and implementation of measures that contribute to the maintenance of human health, you should know the rules of a human's physical development and motor function changes during lifetime. After all, the need to understand these processes to some extent occurs during all stages and phases of a person's lifetime [5, 6].

The term human development, in our view, lies not only in a natural process of formation, development and subsequent changes of morpho-functional natural properties of the human body during the individual life but also improvements based on a human's skills and abilities, i.e. capacity to create opportunities for health maintaining. The structure and nature of human development in the light of the health maintenance principles are shown in Fig. 1.

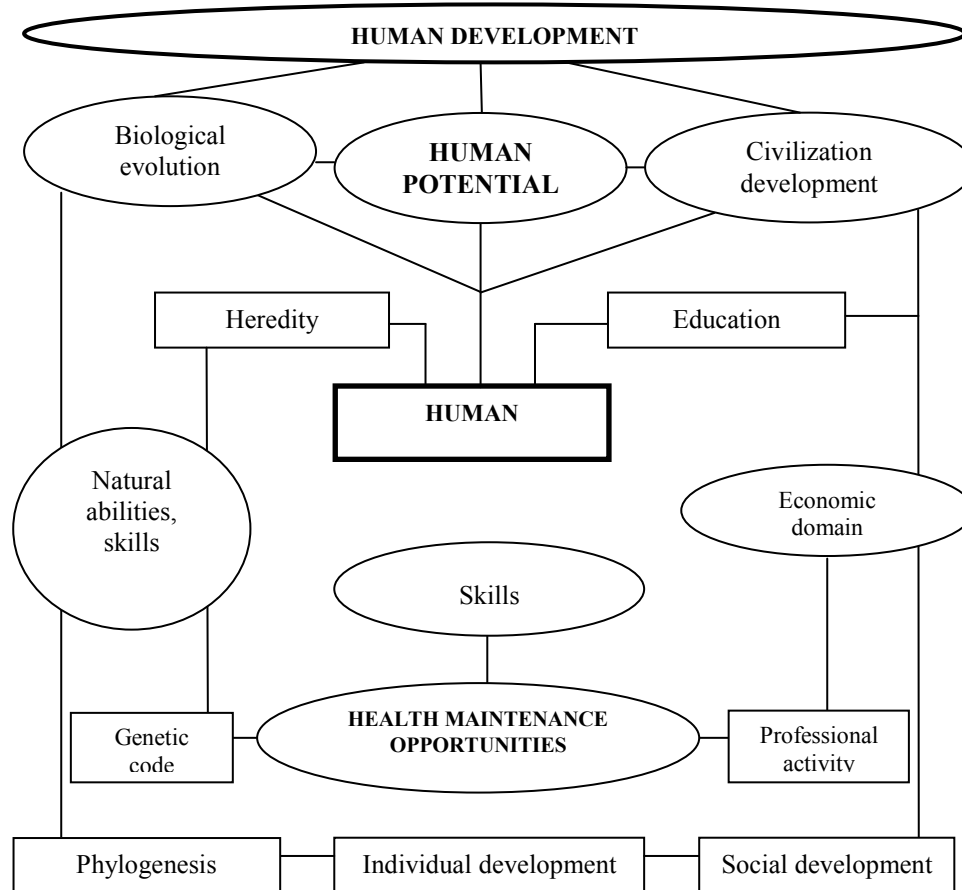


Fig. 1. The structure and nature of human development in the light of the health maintenance principles

In fact, to define processes of the human body development using the following terms are used: *growth*, *development* and *maturation*. Most often the term *growth* is used to determine the size characteristics of the body and its parts. The concept of *physical development* is used to display functional changes that occur in the process of growth and vital activity. Finally, the *maturation* period is used to determine the process of becoming an adult with the developed forms and functions of the body [6].

It should be noted that in the literature [2, 4, 7, 9, 10] there is no single approach to determine the definitions *growth*, *development*, *maturation*, which is due primarily to the complexity of processes and different methodological approaches to solving scientific problems. Nevertheless, despite the methodological and conceptual differences, in all cases the interpretation of the term "*human development*" is based on health indices and such characteristics as changing the parameters during specified time, the acquisition of these indices other quantitative and qualitative characteristics, as well as the interdependence of these processes over the time.

The concept *development* (ontogenetic) should be understood as a system of interrelated irreversible processes which shape the human body during his/her lifetime. In most cases, the process of human development is considered in three aspects: biological, psychological, and social.

The biological development of a man can be characterized on the basis of changes occurring at the morphological, physiological and motor levels. Mental development starts with the formation of a human's mental structures that are closely related to the properties of the central nervous system, especially its higher departments. And finally, social development begins even before the formation of the mature person who is able to perform social functions. The defined aspects of human development complement each other and their division may be only conditional.

The global concept of human development emerged historically and logically from the theory of human capital and has become one of the best achievements of human civilization. The theory of human capital has become precisely the element that effectively combines pragmatism that prevailed during the last century - "income centrism" with traditionally attractive for civilized nation's humanitarian ideas - "man centrism". However, unlike the theory of human capital, which demonstrates the economic expediency of improving a human as a factor of production process, the concept of human development comes out of the primary intrinsic value of a man with that of production exists for people and not people for the sake of production.

Human development is about much more than the rise or fall of national incomes. You can talk about creating an environment where people can realize their full potential and lead productive, creative lives in accordance with their needs and interests. Human development is not only enhancement of people's income but also their health, education, environmental conservation, freedom of action and speech, as well as other conditions of formation of social and economic development. Thus, at any stage of human development there are three key problem blocks, three groups of human needs:

- to live long and healthy life;
- to acquire, expand and update knowledge;
- to have access to livelihood, providing a decent standard of living.

It is assumed that these three dimensions certainly reflect the choice of the person, in the sense, that each person being free to choose, would prefer a longer life, higher levels of education and better financial security. It is admitted, however, that in fact, people chose not only their own longevity, but also the benefits that should be associated with it. The first and foremost is a long and healthy life. In other words, three measurements are in the mind of a human something more than what follows from their definitions directly, and this implicit assumption should be reflected in quantitative indices of human development. One or another level of solving these problems determines lifestyle. At the same time it determines the life prospects of solving any life issues [6].

Scientists do not stop searching technology and teaching methods, which would allow young people to form health maintenance thinking and belief in the need for a healthy lifestyle. At the stage of the recital part of the experiment, we analyzed not only the graduates' level of health, but their lifestyle and the ability to use the fitness technologies. These aspects we considered in the axiological context, namely, analyzing students' ability to perceive the health values from the perspective of thinking, motivation for a healthy lifestyle by studying the relationship between the characteristics of their lives and their profession peculiarities.

As it turned out, stress situations that people have to endure are caused by the specifics of their profession. The responsibility for the lives of people every week provokes stress in workers of physical education and sports and medical officers (respectively 28.4 and 27.2% of people); financial responsibility – among economists (25.9% of people). Workers of technical professions are under less pressure (18.5% of people). Frequent headaches, lack of sleep and complain of palpitation occurred, respectively, among 32.8; 14.2 and 2.7% of respondents. The largest number of chronic diseases especially cardiovascular disease was observed in relatives of people surveyed (59.6% of people). Among them there are: heart attack - 31.7%, angina pectoris- 4.9%, hypertension - 23.0%.

The number of people who do not know and never think about their hereditary diseases is 22.4% of people. Cases of sudden death at the age of 50 years occurred in 7.7% of respondents' relatives. Diabetes occurred among 9.8% of respondents' relatives, while 0.5% of people have shown that they do not know and do not understand these terms. On the cognitive component of a human readiness to manage personal health can be judged by the presence of a reasonable idea of the significance of a healthy lifestyle; ability to assess personal health level and degree of pathological abnormalities in his/her body; the ability to implement differentiated health-related tools and methods for timely health maintenance. Speaking of values, which encourage people to recreational activities, the common public activities predominate - 43.8%. This is an indication that the age formed worldview to which a person comes up as a result of hard work. Society takes a leading role in the total number of a personality's social traits. Being a member of society a person integrates diverse individual and social experience into his/her life stance, including health maintenance principles.

Analysis of the use of health-related measures in daily life suggests that the problem of career opportunities for men is relevant at the age of 25-30 years and the lack of free time plays a significant role. They are most active at the age of 31-40 years. At this age, men are more responsible for their health but at the same time they suffer from chronic diseases which aggravate by 40.

Women at the age of 25-30 are most active in terms of the use of health-related measures. Presumably, this is due to child-bearing, stay at home and desire to return to the previous weight after childbirth. Health-related activities of women after 41 are explained by their fight against aging. Evidence of this is their "peak" of health and fitness classe activity at the age of 41-50. Summarizing the obtained data it can be stated that most of those who do not use recreational activities in daily life (46.5%) are young people aged 25-30, and most of those who often deals with rehabilitation (32.1%) people aged 31-40. Those, who are daily engaged in maintaining of their health through the use of health technologies, as it turned out, are very few (*Table 1*).

Table 1

Cross-analysis of respondents' motivation to the use of health-related tools considering gender and age peculiarities (number of people in %)

Gender	Questions	Possible answers	Results	Age (years)			Total	
				25–30	31–40	41–50		
male	"Do you use health-related tools in everyday life?"	"do not use"	number of people	24	6	21	51	
			%	23.3	5.8	20.4	49.5	
		"use partly"	number of people	12	18	9	39	
			%	11.7	17.5	8.7	37.9	
		"use every day"	number of people	10	2	1	13	
			%	9.7	1.9	1.0	12.6	
	Total			number of people	46	26	31	103
				%	44.7	25.2	30.1	100.0
	female	"Do you use health-related tools in everyday life?"	"do not use"	number of people	19	11	8	38
%				23.2	13.4	9.8	46.3	
"use partly"			number of people	15	12	14	41	
			%	18.3	14.6	17.1	50.0	
"use every day"			number of people	0	3	0	3	
			%	0	3.7	0	3.7	
Total			number of people	34	26	22	82	
			%	41.5	31.7	26.8	100.0	

As for leisure activities, the majority chooses for themselves watching TV (25.4%) on weekdays; 22.2% of respondents indicate that they have no free time; 18.9% of respondents prefer to communicate with friends; 14.6% of respondents are busy with household chores; 10.8% of respondents spend their free time at the computer, and 8.1% of respondents read fiction. On weekends or during holidays, the largest number (47.0%) of respondents admitted that they just sleep; 26.0% - have a rest at the computer; only 18.9% spend holidays outdoors, and 8.1% - traveling. As you can see, the sedentary lifestyle is prevailing.

It is established that the value-motivational purposes focused on health maintenance are rather poor to develop convictions of the need to follow healthy lifestyle among youngsters, and this fact indicates the need for improvement of educational services in this area.

Discussion

The integral formation process of human development depends on human health and is influenced by two main factors: internal development program, which is genetically embedded in the body and is inherited from parents, and external factors of biological, cultural and social impact on the human body. Thus, all the factors that influenced the development of a human are differentiated into three main groups:

- genetic factors that are associated with the transmission of hereditary traits from parents to children, which mainly affects the constitution (body structure), gender, etc.
- paragenetic factors that affect the child through maternal prenatal development;
- exogenous factors (modifiers), among which you can distinguish biogeographical elements (organic modifiers - flora and fauna, water, climate, environment, etc.) and socio-economic elements (cultural modifiers - the family wealth, education, parents and educators' culture, especially traditions, customs, etc.).

It is well known fact that any change in education is a necessity and a reflection of the processes that occur in society and there are objective reasons for certain changes in its structure and content, as it is shown in the new Law on Higher Education [1]. Today the conditions of social, environmental and radiation situation increasingly highlight the necessity to design the educational process at higher school on the basis of health maintenance paradigm, as a modern specialist can have a high level of professional training only being physically fit [1, 5, 6]. It is clear that sustainable human development in today's conditions is possible only through the formation of students' competence in the maintaining of their health, and on the basis of a sustainable and vital position on following of healthy lifestyle.

The analysis of the recent research and our own teaching experience suggests that in the process of health maintenance learning the concept of "competence" should be attributed to such scientific concepts as "ability," "capacity," and "skill". The "competence" is closer to the concepts of "know how" than the "I know that." In this case, competence serves as actualization and realization of health maintenance principles.

The analysis of our research can offer five groups of health maintenance competencies:

- competences based on the physiological capabilities of the human body;
- competences based on the human capacity to perform certain tasks, i.e. the ability to learn;

- competences based on the requirements and physiological characteristics of future professional activity;
- competences based on the ability to use a variety of health technologies;
- competences based on the need to improve one's health maintenance knowledge to preserve one's health throughout lifetime.

The relationship of competences in health maintenance learning can be viewed in two ways. The first way is the knowledge updating, i.e. its transition to competence. This way is based on psycho-physiological readiness of all systems of the human body to update the knowledge, the experience of using the skills of existing competencies and understanding of their meaning and use emotional and volitional self-regulation. The second way is quite the opposite, and if you consider all the features and unpredictable reactions of the human body to any impact, this trend also seems to be interesting, informative and very significant. In this case the "competence" can be attributed to potential personality traits and "knowledge" - to the actual, personal qualities that are generated from the use of competencies. In our opinion, knowledge acts as updating complex competencies that define the content of this knowledge. In our opinion, the learning process should include the experience acquired by a young person years during his/her life, and this is a reflection of important sensitive states in the process of self-education. It is known that any complex formation of personality and individuality is based on a particular set of natural properties of a man as an individual. The mighty power of developing knowledge and skills on health maintenance is shown not only when students acquiring historically human experience, modern methods and activities become responsible for their own health but also when the process of one's self-perfection acquires new properties of human development.

Conclusions

At present the issue of improving health maintenance learning content in the new socio-economic conditions has not received proper scientific analysis and study of its strategy and development. The features of ontogenetic development of each student necessitate to research content components of education in higher education. This situation determined the need to understand the logic of the educational process in the higher educational institutions. The importance of social and educational orientation to health maintenance learning should not be simplified by the orientation to the development of somatic human nature. We consider that physiological and sociocultural aspects of human development are key ones to the formation of human potential. The integrity of the human development makes its specific quality and necessitates the integration of health maintenance knowledge of students during the learning process. In fact, the term *human development* defines, on the one hand, the process of changing forms and functions (morphological characteristics) of the human body for individual life and on the other - a set of characteristics that influence the formation of social values. Speaking of individual human development, it can be argued that it is organized in time integrity of interrelated morphological, physiological and psychological states, phenomena and processes which influencing each other form the human body for the whole lifestyle. The mechanisms of the introduction of health maintenance technologies that will improve quality of life, and ultimately, economic growth in our state will be studied in our further investigation.

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