

An Integrated Sociocultural, Valeological, and Biomedical Approach to Human Health

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Abstract: The problem of human health is considered from the perspective of modern holistic scientific and philosophical knowledge about a person in the key theoretical, methodological, and praxeological terms. The authors argue that in sociocultural, pedagogical, and biomedical bodies of knowledge, the general principles of the optimal existence of a person in harmony with the world are reflected. Accordingly, philosophical and anthropological knowledge is the conceptual basis of general knowledge about human health as about achieving internal and external harmony of existence. A common understanding of health includes health in the socio-cultural, individual-personal, valeological, sociological, and biomedical aspects.

1. Introduction

The problem of man is eternal. It begins with the appearance of man himself, with the ability to recognize his own kind and to develop self-awareness. The ways of expressing this understanding have been and remain very diverse. These forms of understanding of man include the following: traditional, folk (transformed over time), ethnocultural (very diverse), religious, mystical, philosophical, scientific, scientific and technical (with the help of pedagogical, biomedical, social technologies, as well as information, robotic, manipulative technologies, etc.).

Therefore, we restrict ourselves and indicate the approach to man applied in this article. This is a modern scientific and philosophical approach. Next, we should determine the aspect of the consideration of issues: theoretical or applied. In this article, we will consider material about a person based on conceptual knowledge (primarily sociocultural from the standpoint of domestic culture), but it also used in the applied aspect. The article will discuss health in philosophical, cultural, pedagogical, and valeological and practical biomedical aspects, relying on similar knowledge about a person.

The purpose of the article is to determine the most relevant knowledge about human health in theoretical and applied aspects. The objectives of the study are to study the sociocultural, valeological, and biomedical knowledge of a person from the standpoint of strengthening health at the individual and social levels.

2. Materials and Methods

This article is of a comprehensive theoretical and methodological nature. The material is modern general scientific and philosophical knowledge about a person and his health. Accordingly, the dialectical and system-ecological methodology, methods of analysis and synthesis, induction, deduction, comparison, as well as praxeological methods in education and medicine are used.

3. Results and Discussion

The problem of human health is eternal for human civilization. But in different cultures, in different historical eras, it is allowed in different ways, depending on the level of knowledge of people about certain diseases, on their ability to heal patients, on existing methods of healing, treatment, etc. Besides, a modern person must have a certain sociocultural level of development, thanks to which he can consciously lead a healthy lifestyle or become more actively involved in it. From natural scientific and philosophical positions, the holistic and versatile approach to man was originally developed in the works of V. P. Kaznacheev, G. V. Kandyba, E. A. Spirin, V. M. Strashnikov, and others in the 80s - 90s of the twentieth century [7; 8; 9; 12].

V. P. Kaznacheev and E. A. Spirin explore a human as social and natural integrity that has a social, natural, and cosmic origin (citing the views of N. K. Roerich and K. E. Tsiolkovsky, who states that humans are the inhabitant of the Cosmos). The authors propose to consider the essence of humans in the relationship of all their main natural and social qualities (properties and manifestations) [8]. P. V. Ushakov, specially examining the multidimensional essence of man, substantiates that a single man's essence manifests itself in the form of its interconnected components, such as spiritual, moral, cosmological, geological, biological, psychological, sociological, ethnocultural and environmental entities [12].

In addition, we are talking about the interpretation of such fundamental concepts as health, illness, healthy, and unhealthy lifestyles. Here, the valeological aspect is paramount in the problem of human health. The concept of "valeology" as a science of health (from one of the meanings of the Latin *valeo* is to be healthy and Greek *logos* is law, word, teaching, a designation of different sciences) was first applied in Russia by a domestic doctor and scientist I. I. Brekhman [2]. The scientist writes the following: "Human health is its ability to maintain age-appropriate stability in the face of sharp changes in the quantitative and qualitative parameters of the triune flow of sensory, verbal and structural information" [2].

Valeology has two main meanings: as a science of health and as an educational discipline about human health. This general educational discipline forms an understanding of a healthy lifestyle of a person and communities of people, gives an understanding of the fundamental differences between a healthy and unhealthy lifestyle. This aspect is directly related to the organization by citizens of their behavior and activities, with conscious guidelines for restoring, maintaining, and strengthening their health, in addition to going to doctors. Although, the latter is not at all excluded in the case of various injuries and diseases. A significant place is given to sports and recreational practices, with recommendations for the proper conduct of training, with optimal loads for the body in sports sections, clubs, etc.

A modern understanding of health also turns out to be rather complex and ambiguous. In 1946, the World Health Organization (WHO) was created, which has since been considered the leading international organization in the field of health. The WHO Constitution has been adopted. The first preambular paragraph to the Constitution provides the following definition of health, "Health is a state of complete physical, mental and social well-being, and not just the absence of diseases and physical defects" (WHO Constitution) [11]. Although, it should be emphasized that this definition can most likely be taken as the ideal setting of life for most people, rather than as the reality of their existence. Understanding social health is also important. In this regard, it is advisable to pay attention to the opinion of V. P. Kaznacheev, who believes the following: "Health must be considered at the individual, population and global, planetary levels, both social and environmental factors must be considered" [7].

Also, attention should be focused on understanding health in a systematic and philosophical aspect. In particular, "Human health is initially (genetically) given, and then consciously controlled: (1) Optimal interactions of internal structures and processes (functions) of an organism, its material-energy nature; (2) Resistance to external aggressive influences; (3) Optimal interaction with complementary systems and environments" [3].

P. G. Vorontsov, N. V. Nalivaiko and E. V. Ushakova offer a more detailed look at health in the social, pedagogical and scientific biomedical aspects, as follows:

Human health in the social aspect, as an organic part of society, is the most general concept. At its core, it contains medical, pedagogical health, but is not limited only to them, including also the following types of health: spiritual and moral health, coming from the best traditions of the people, from a culture of religion, art, morality, patriotism; civil (socio-political) health with the organizing idea of the life of the Motherland

(native ideology) and the person in it; ecological health, determined by the ability and art to preserve and ennoble the natural environment of Mother Earth.

Health in the pedagogical aspect (valedological aspects, conceptual pedagogy of recovery) is a complex of pedagogical knowledge systematically arranged in time about human health, about ways to maintain it, maintain it, about combating various pathogenic factors and about various complexes of healing procedures (hardening of the body, etc.).

The health of a person in the medical aspect is, first of all, his/her bodily (or somatic, physical) and mental (subconscious, psycho-emotional and rational) health. First, in medical practice, it is considered "by the method of the contrary," as the fight against pathologies on the path to recovery and health. And only, second, it is considered as creating healthy conditions for the existence of the human body (prevention) and carrying out permanent actions that heal the body (hygiene) [3].

We consider this approach quite appropriate. In this connection, when considering the biomedical approach in our article, we will rely on the above understanding of health in the medical aspect. And now, we turn to the scientifically applied biomedical approach to human health. The specificity of medicine is that most medical practitioners do not deal with healthy people, but with sick patients. However, the problem of human health in medicine is no less relevant. Particular importance should be given to the health of children, since in childhood, the potential of bodily and psycho-spiritual health of the body for many years, for the rest of their lives, is laid.

"The whole history of philosophy, thinkers are trying to solve the mystery of the human "Self." Is "Self" connected with the physicality of a person? It was stereotypical to remove the "Self" from consciousness, which is endowed only with cognitive functions ... so that the world is present in consciousness..." [1]. However, upon closer examination, it turns out that the relationship of the human "Self" only with its spirituality, regardless of the body, can hardly be considered correct. "A phenomenal body is a body that is populated by subjectivity. It is on the border of being-in-oneself and being-for-oneself, it reveals the potentiality of the human world. <...> Ophthalmology knows the physical physicality of the eye, but the human eye exists in unity with the gaze" (S. A. An) [1]. And among the people, there is a completely reasonable belief that "all diseases are from nerves." But undoubtedly, a wide sociocultural context is embedded in the word "nerves." This word means that a person's environment of existence that is capable of either bringing him a joyful sensation of the fullness of his being and spiritual-bodily health. On the contrary, it causes endless experiences, suffering, and the meaninglessness of being. What generally deprives a person of his/her neuropsychic, bodily health, and sometimes life itself.

We conclude our article with an applied biomedical approach to humans, associated, first, with childhood diseases, and second, with diseases of the musculoskeletal system. Let us present the main results of many years of research by A. I. Metalnikov, one of the co-authors of the article, in the field of children's orthopedics. Addressing this group of diseases is no coincidence. On the one hand, it is from childhood that diseases most often begin, which then pass through a person throughout his whole life, and therefore the role of pediatrics is very high. On the other hand, the development of a modern, comfortable society of "global mass consumption" is associated with an increase in comfort, especially urban life, which, however, has its reverse side. The reverse side consists of reduced motor activity of the population, or sedentary lifestyle, as well as in unnatural for the skeleton poses taken for a long time. The result is a surge in such diseases of the musculoskeletal system in early childhood, which have traditionally been considered "diseases of the elderly."

A significant part of the pathologies of the musculoskeletal system has a hereditary nature. However, as we know, one or another hereditary predisposition, depending on environmental conditions, may or may not appear. In this regard, the earliest diagnosis of diseases of the musculoskeletal system in children of preschool and primary school age and consistent long-term work to improve the children's body is very important for a person for the rest of his/her life. Over time, the possibility of a manifestation of a hereditary disease largely depends on a variety of external factors, such as: family, social, environmental. If pathogenic factors are present (for example, external conditions causing physical inactivity), they can stimulate the growth of various hereditary pathologies. On the contrary, the healing factors of the environments surrounding a person stop the manifestation of a number of hereditary diseases. The second group of factors should include the complex of long-term treatment and prophylactic measures recommended by medicine.

So, for more than ten years, in the conditions of a children's clinic and hospital, A. I. Metalnikov (co-author of this article) conducted a study of disorders of the skeletal connective tissue in children, which is considered as a pathology of the musculoskeletal system, often with a genetic predisposition. In medicine, for such diseases, the concept of "hereditary connective tissue disorders" is used. A synonym is the term "connective tissue dysplasia," which means abnormal development, the perverse formation of connective tissue. This includes both congenital malformations of the skeleton, and abnormal, vicious development of the connective tissue of the musculoskeletal system of the baby after birth [4].

Dysplastic changes in the skeletal system, with changes in the structure of the skeletal connective tissues, include several diseases in children and adolescents, primarily associated with impaired posture and hypermobility of the joints. As a rule, the disease is determined by external (phenotypic) and pronounced clinical signs. This is a specific appearance of the patient and increased fragility of the bones of the skeleton. The danger is that these signs are combined with severe pathological changes in the internal organs.

According to the severity of lesions, hereditary connective tissue disorders are characterized as undifferentiated and differentiated. In practice, undifferentiated forms are the most common. They are diagnosed using external signs that do not fit into any of the obvious typical pathologies (for example, Marfan syndrome, imperfect osteogenesis). Most often, pathological changes in the spine, such as a flat back, around back, idiopathic scoliosis are observed. Also, pathologies in the form of early juvenile osteochondrosis, Scheuermann – Mau disease develop. For example, juvenile kyphosis was first described at the beginning of the last century by the famous scientists G. Scheuerman (1921) and K. Mau (in 1929), as a result of which, the disease was named Scheuerman–Mau. We recall that kyphosis (from the ancient Greek *κυφός* – *bent, humped*) is a curvature of the spine in the sagittal plane, directed convexly backward, curvature opposite to lordosis [4; 6; 10].

A. I. Metalnikov, as a medical practitioner and researcher, for over ten years, has been monitoring children with various forms of connective tissue dysplasia. The author's methodology of therapeutic and preventive procedures has been developed. If these methods were applied systematically, sequentially for many years, then significant improvements in the condition of patients came, pathologies were corrected. The main results are as follows. At the initial manifestations of pathological changes in the child from the side of the spine, it is traditionally recommended to use a back holder or semi-rigid corset for the duration of heavy loads, to complete lessons and lengthy workouts. In the future, with a favorable course of the pathological process, a non-strict mode of wearing this back holder is prescribed. But the main therapeutic and preventive effect is the development of special motor complex preventive functional programs. In children of the main group, there is a marked improvement in the function of vital organs, external respiration, lymph circulation, blood supply, and strengthening of the muscles of the back and abdomen.

The patient is offered with a set of exercises on the "Swedish wall" (an orthopedic ball during rehabilitation treatment on an outpatient basis). Exercises on the "Swedish wall" include "crawling" up the wall. A very important part of training in physiotherapy exercises is the further "ejection of the lower support" (when the child releases his/her legs, while holding his/her hands on the crossbar of the "Swedish wall" with his/her back to it). In this case, there is a gradual restoration of the musculoskeletal system of the spine.

Long-term observations are carried out. Five years after the start of comprehensive preventive programs in patients, the results of the main group revealed an increase in the endurance of the back muscles, a minimum number of pathological manifestations, including arthritis, arthralgic syndromes, coccydynia. Ten years later, by the age of 14, good posture was formed in patients, a consistent muscle corset was noted, a minimal number of complications were diagnosed, such as Scheuermann-Mau disease, scoliotic deformity of the thoracic spine, early juvenile osteochondrosis. The effectiveness of preventive and therapeutic measures aimed at minimizing complications in children with impaired posture in the context of hereditary connective tissue disorders was noted. The feasibility of early medical examination in outpatient settings based on the city children's clinic is proved.

In the process of work done, the main goal was achieved, namely, the creation and implementation in practical healthcare of comprehensive programs for children with hereditary and acquired connective tissue disorders at the stage of early detection of incorrect posture. Special methods of preventive measures have been developed for children with poor posture, flat back predisposing to the development of persistent lateral

curvature of the spine, Scheuermann-Mau disease, other osteochondropathies, early juvenile osteochondrosis. Their use has significantly reduced the frequency of adverse outcomes.

4. Conclusion

Thus, this article shows that an understanding of the essence of a person and their health must be approached in a comprehensive manner, from socio-cultural, scientific-philosophical, as well as biomedical practical (therapeutic and prophylactic) positions. This comprehensive approach allows one to take into account the multifaceted nature of people, the complexity and diversity of their health problems. Particular attention should be paid to scientifically based pedagogical and valeological programs for the population, since they enable a person to consciously come to the desire to lead a healthy lifestyle and provide important theoretical, methodological and practical knowledge for the practically correct and effective implementation of this goal. Particular attention should be paid to innovative developments in medicine, of a therapeutic and prophylactic nature. They allow systematically strengthening, maintaining, and developing the health of patients, starting from childhood.

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