

Methodological fundamentals of health-improving student youth training

Tetiana Loza
Olexander Khomenko

Sumy State Pedagogical University name is
A. S. Makarenko, Sumy, Ukraine

Purpose: to carry out a theoretical analysis of the problem of socio-pedagogical basis formation for effect of health training on the state of human health.

Material & Methods: analysis and generalization of data from scientific and methodological literature.

Results: factors are defined and systematized, and also their interrelation which determine possibility and reliability of achievement of the purpose – improvement of various groups of the population.

Conclusion: obtained research results can be used as a basic basis for building health-training programs with different population groups, as well as for ensuring the effective solution of the problems of physical education in a higher educational institution.

Keywords: health-training, physical education, student youth.

Introduction

Now one of the most important indicators of the welfare of society and the state is the state of health of various groups of the population. However, the current state of health of the population of Ukraine as a whole, children and young people in particular, is a significant challenge for society and for the state and, without exaggeration, represents a real threat to its human security [13].

Strengthening and maintaining at a high level the psychophysical state of various groups of the population, the full development of the personality, the training of modern highly qualified specialists capable of ensuring the efficiency of production, is a composite educational process in higher education [6].

The issues of educating students of a holistic awareness of the relationship between the culture of health and personality are still in the research stage.

The analysis of the literature on the problem of the formation of a healthy lifestyle and health preservation shows that there are several theoretical areas, such as the dissemination of awareness of the state of the problem of deteriorating health of modern youth. Also important are the development of the concept of health improvement for students and youth in the process of education in educational institutions. Therefore, it is important to determine the main directions of man's striving for good health with the use of means and methods of health training.

The relationship of research with scientific programs, plans, themes

The research was carried out in accordance with the plan of research work of the Sumy State Pedagogical University

named after A. S. Makarenko, the Ministry of Education and Science of Ukraine for 2015–2020. On the topic: “Theoretical and methodological foundations of physical culture education of different population groups”, approved by the State Registration Department of the Ukrainian Institute of Scientific and Technical Information in Kiev. (number of state registration 0116U000900).

The purpose of the research

To carry out a theoretical analysis of the problem of socio-pedagogical basis formation for effect of health training on the state of human health.

Material and Methods of the research

Methods of research: analysis and generalization of data from scientific and methodological literature.

Results of the research and their discussion

Health has always historically been considered one of the most important values of life. And there was always the problem of ensuring its high level.

Thanks to a large arsenal of remedies and forms of their use, the primary role belongs to health improving training. Health improving training, which carries a broad sense as a system of physical exercises in order to improve the level of physical condition to the due, is also called «conditioning training» [8].

To this we should add that always health training has occupied and takes priority positions in the development of general theoretical concepts and personal techniques of various types of exercises and their methodological generalization.

Generally, physical activity is pursued by one purpose – to achievement of psycho-physical perfection, depending on the individual characteristics of those involved, the state of health, physical development, motor skills and abilities, preparedness, motivation, conditions for classes, and so on. However, the main essence of the lesson is the desire to improve their psychophysical conditions and the ability to realize them.

In this regard, two areas of this improvement are possible::

- providing such psycho-physical capacity that would guarantee a person to carry out domestic and professional activities;
- achieving higher levels of quality development that can be implemented in a particularly difficult and challenging conditions. At the same time, there is a high probability that arbitrary manifestations of specialized abilities can occur in conditions of domestic and professional activity, that is, there will be some positive transfer of effectiveness from specific activities to activities that are not covered by this action [3].

It is known that the methodology of recovery, based on health training, is characterized by systematic [2].

If we construct an ideal model of a healthy person, whose realization should be sought, then it will include the following main blocks:

- absolute health;
- reliable motor potential;
- a stable complex of psychic qualities in the absence of pathology;
- intelligence as a system control tool for created blocks and the system as a whole [3].

The allocation of certain blocks of the model is done with analytical purposes: the whole essence of the model and the fundamental possibilities of its functioning are due to the unity of its constituent parts. The absence of any of the blocks or links between them excludes the correct representation of both the model and the system of its implementation, that is, even the technologies of psychophysical improvement.

The feasibility of implementing such a model depends primarily on the state of the individual, and the construction of a specific healing technology must be adjusted depending on the individual state of each significant characteristic of the person who is engaged in recreational training. But this all the same requires the construction of a generalized methodology that defines the tasks, the main groups of tools, the possibilities for their resolution and complex action, the final effect, methods of use, controls, correction and evaluation of results. Therefore, before we consider directly the methodology of recovery, it is necessary to analyze the factors and their interrelations that determine the possibility and reliability of achieving the goal of recovery and the reliability of the established healthy personality.

The purpose of improving the health of a particular person is to ensure that it is vital, that is, the capacity for a large number

of actions due to the need to exist in certain natural and social conditions, as well as to perform labor operations of domestic and professional nature. This effect is carried out through the functional systems of the body, which are the main in the performance of vital functions: nervous, cardiovascular, respiratory, musculoskeletal, motor, excretory, endocrine and so on. The difference in the development of these systems, the presence and the degree of their diseases determines which health-improving effect is principally possible and expedient to admit in relation to a person: pedagogical or only medical, and what specific methods of influence are appropriate that are adequate to the functional state. It is they who dictate the choice of medical indications and limitations, the regimens of work and rest, nutrition, pharmacological additives and other [10].

The level of development and capacity of all the above functional systems is related to the physical sphere of man: his integrity, the presence and level of development of motor qualities and the ability to realize them in everyday, professional, social and other conditions.

With a complete musculoskeletal system, there are already certain levels of development of strength, flexibility, speed, the natural and definite connection of physical qualities with the nervous, cardiovascular, respiratory, excretory systems. The integrity of functional systems and the absence of pathological disturbances initially determine the very possibility of manifesting physical qualities, but the improvement of these systems and their capacity are ensured and limited by physical qualities, which, in turn, are improved by pedagogical, that is, those that are specially selected, and managed of action.

In a qualitative pedagogical process, it is impossible to influence a person, bypassing his psychic sphere, by which is meant the totality of mental properties and abilities for self-regulation in adequate psychological responses to external and internal motivations. Complex mental properties of the person is important not only in the perception and reflection of the external world, but in particular the assimilation influential on him educational activities and developmental nature.

However, the essential role in the initial attitude to self-improvement is played by the meaningfulness of necessity, the motivation of its recreational activities and its organization. But for this we need a certain intellect. Intellect is defined as a person's mental abilities and is interpreted in various language sources as "concept, understanding, sensation, facilitation, understanding, sense, cognition".

At the same time, psychophysical recovery should be viewed not so much as a process of physical training alone, rather than as a social and pedagogical system that shapes a meaningful attitude toward exercise, certain moral and ethical perceptions of them, the need for a healthy lifestyle and the relative construction of its content and regime, regular activity in the use of scientific principles and means of improvement – in general, ensuring the activity of life positions and the meaningfulness of their personal significance and social utility.

In accordance with this starting position, the general theoretical and general methodological principles of the improving and developing direction of physical culture are transformed into certain conditions, the unquestionable fulfillment of which can yield significant positive results. In health training, these

results are almost entirely dependent on the correct choice and correctness of the application of pedagogical influence.

The most significant are:

- choice of health-improving action depending on the presence and degree of functional deviations in the state of health;
- individual attitude to the content and characteristics of the selected species and means of recovery;
- degree of loading when using a certain healing effect;
- possibilities of mental state for the transfer of the proposed load;
- optimal ratio of combinations of different health-improving means;
- the ratio of the nature and amount of load to the state of the environment and individual biorhythms.

The state of functional systems is a prime factor on which virtually all health improvement depends on the possibilities to the result. First of all, the individual's attitude to the very necessity of recovery is determined from him. This need should be strengthened by understanding the possibility of reliable results of recovery. In general, they constitute the first level of motivation, which will ensure the emergence of an active interest in health improvement in general and the choice of a particular species and specific means.

The attitude toward health improvement differs from the lack of confidence in the need to spend time and energy and is associated with the habituation to special conditions, and also, as a rule, with the delayed manifestation of the results of studies. Therefore, here we need a special approach in determining both the forms, and composition, and nature, and the level of load and ways to stimulate [1].

That is why the selection of means and methods, modes of their use – must constantly reinforce interest in studies and gradually transform the motivation into positive skills. And although any kind of recovery requires a certain work, here, unlike sport, the meaningfulness of the need and usefulness of classes should be provided by pleasure. And this means that it is this criterion that should be used when choosing the type of recovery and rational ratio or combinations of various health-improving effects.

Motivation of students for physical training and sports we consider as a purposeful process of positive influence on the person through physical culture with the purpose of preserving and promoting health [9].

Anyway, the whole effect of the action is closed on the personality of the person who is engaged in health training. And this means that the use of any health facilities should be consistent with individual biorhythms and the state of the environment. As it was said, the effectiveness of the various means of recovery depends on the personal interest of the person who does health training. In this regard, it should be noted that different functional systems of the same person almost uniquely react to certain types of health effects, but different types of their responses are not identical. This should be used, more accurately approaching the choice of means and methods of using them for health purposes on the basis of the individual characteristics of those who are engaged in health training.

Based on the generalization of the theoretical and methodological foundations of recovery and analysis of the results of their introduction into practice, it is necessary to emphasize following the methodical principles of health-improvement training: the need, expediency, adequacy, complexity of impact, rationality of construction, load manageability, stimulation of interest in pursuing of students.

The necessity of exercising physical fitness exercises in the health-improving direction is determined by the state of functional systems and psychophysical preparedness, and also by the meaningfulness of the desire to improve them. In general, it is these two factors that determine the beginning of a person's exercise in physical fitness. With any, even the best, state of the body's functions, a systemic application of special means of psychophysical influence is needed that allows to prolong this state, to use effectively in a specific professional or sporting activity, to create prerequisites for achieving a higher level of improvement. Without comprehension of such necessity and positive influence of applied measures of improving effect it is impossible to reach. Formation of understanding the need for recovery and must be subordinated to any available means that are the content of pedagogy and psychology of physical education [9] The expediency of recovery is even more determined by the above reasons. But on their own they do not justify the referral to the health-improving direction, and not, for example, the sanitation-health form of recovery, or even more to some other types of recovery. Therefore, the expediency of resorting to recovery and the choice of one or another kind of it is determined to a greater extent by the comprehension of certain features of the person's psychophysical state and the possibility of influencing a particular type of recovery, which in turn has certain attributes (properties). For example, a completely different property of static and dynamic strength exercises, cross-country and other.

Undoubtedly, the doctor will better determine the expediency of recovery, the preferred form and form, but recommendations about a specific tool, methods of its use and some conditions will be more professionally made by a specialist in the field of physical education. Therefore, they need a close relationship. Adequacy of the choice of direction and type of recovery, in addition to the above reasons, depends on the interest, the desire to engage in this type of exercise and the appropriateness of the purpose of the exercises. Interest arises under the influence of subjective and objective reasons. For the emergence of desire, in addition to interest, it is necessary not only to make sense of the opportunity to heal and the speed of productivity, but also the attractiveness of the forms and nature of the activity, as well as the external accompanying signs of it: beautifulness, comfort, taste, etc.

But the preservation of the desire, plus all, requires the actual effectiveness of the lessons. Without it, there is a doubt in the appropriateness and necessity of classes, and in the adequacy of the chosen type of health training. It's good, when the lack or small effectiveness is caused not by the very successful or completely unsuccessful choice of the type of recovery, which turned out to be inappropriate for the individual characteristics of the person who does health training. This often happens when an individual approach is absorbed by a group way of organizing classes.

In this case, there is still the opportunity to correct the mistake

and choose a more effective way of health training. But often, especially at the initial stages of classes, disappointment is so great that the desire to deal with all the negative consequences disappears. Therefore, it is very important for each immediate period to set tasks in such a way that they can be solved by selecting the means that satisfied the person who is engaged in the maximum degree of application, content, external characteristics, but at the same time it is necessary to constantly encourage him successes at least to an insignificant degree and due to this formation of meaningfulness of usefulness and productivity of studies.

On the other hand, the organizer himself must analyze the adequacy of the funds used from various points of view, critically evaluate their effectiveness and their role in providing it, and at the same time make their own adjustments. The complexity of the impact, as a methodical principle, allows, if possible, simultaneous impact on the psychophysical sphere, functional systems, mobile abilities and intelligence [2].

As for the psychophysical sphere, its components are, in fact, inseparable from each other. If every physical exercise that is directed at the muscular system simultaneously carries out the psyche of those who are engaged, because it is reflected in the performance of mental processes: the activity of thinking and behavior, the analysis of tasks, attitudes and conditions for their implementation, the course of realization, and also in correction and evaluation of effectiveness, in general, health training is guided by the intellect. But, in turn, training stimulates the perfection of the intellect of the instrument of intelligent control of motor activity.

Functional systems react to significant shifts only with strong stimuli. As their act a large amount of motor actions and concentration per unit time (intensity), a long time of work, physical severity and mental tension exercise, a saturated mode of activity and repetition of the load at various degrees of restoring functions and other. It is the complex effect of the load that leads to better improvements in functions, physical qualities and motor abilities. But this does not mean that you have to engage in a wide variety of exercises. The essence lies in the optimal selection of the best combinations of exercise options and the constant accounting for the dynamics of various indicators of the state of the organism. This is the key to matching the exercises used to the individual characteristics of those who are involved, the productivity of the classes and the pleasure of domestic needs.

Rationality, or reasonable justification for the use of various remedies, consists of the adequacy of the means to the individual characteristics of those who are engaged in specific tasks of recovery, the optimality of the duration and frequency of its use, and the relationship with other means and methods, a positive trend in the dynamics of indicators [17].

Unlike developing exercises of a sports orientation, in improving training it is supposed simultaneous application of various exercises (for example on speed, force and endurance). At the same time, as in sports, it is advisable to first separate, but accentuated education of physical qualities and motor abilities – which, according to physiological laws and practical experience, allows achieving high results of improvement with less time and effort [3].

One of the most important principles of recovery is load con-

trollability. But this does not mean minimizing the load, which is, using only warming up loads. They are good at getting into work, using for the purpose of rest, distraction from the main activity or keeping the constancy of physical exercises. But without stress, without effort, it is impossible not only to increase the psychophysical potential, but also to preserve it.

It often happens that exercises that are regularly performed with the same load, with the same ratios of work and rest, the one who does, begins to suffer with discomfort. Often this is regarded as a symptom of overtraining or fatigue and therefore the load is drastically reduced or at all time excluded from the established mode of life activity. As a result, there is a lack of training and lack of tolerance, and against this background – a decrease in functionality, since the low load ceases to fulfill the role of a factor that stimulates the deployment of functional reserves. Therefore, in this case, it would be necessary to reduce the load, and change its nature, perhaps even increase the intensity while reducing the volume and duration, but in general, keep its energy supply. Some and the same loads with different functional states cause different physiological changes. Uneven loads carry in themselves and various recreational exercises for the same duration of their.

Another important factor in load management is its distribution in one session. In each type of health-improving exercises there are their own traditional rules of construction and the criteria that are established based on the indices of averaged load of the exercises used, the age and qualification characteristics of the contingent are involved. Therefore it is important to know the load value of the exercises used, individual reactions to the load of a certain type, nature and different dosage, the degree of recovery of those who are engaged, immediately after the session and before the start of another workout – and in skillfully varying the load parameters, create better conditions for an effective recovery process.

Thus, unlike the sports where suitable stepwise construction loads, improving exercise fully principle be used sequences increases and smooth variation of the load.

Coherence of relative ease and stimulating exercise severity is the most important principle of methodical provision of recovery. Only due to light exercises and small loads it is impossible not only to improve, but also to maintain the necessary level of psychophysical state for a long time. Therefore, it is expedient to determine the maximal possibilities of the person who is engaged, and only then, with respect to this maximum, to establish retractors, basic, unloading, stimulating load levels and relatively light or heavy exercises. Then these easy exercises will carry a load within 20-40% of the maximum of the actual and subject to varying their application in coordination with other means to help maintain a stable state of the body. In accordance with such light exercises, medium and large loads are used. This increase in the load must be individual. The use of increased loads will provide a tendency to increase loads and transfer them to a higher level, and hence the relative functioning of the body [3].

Stimulation of interest in health improvement in general and in the selected type of health-improvement training takes place while observing the above-mentioned basic methodological principles, but special methods are also applied. Stimulation in health improvement is provided by a large number of exercises and the conditions for their implementation, a favora-

ble background that causes positive emotions, attention and help, gratitude to activity, the selection of adequate criteria for evaluating the performance of classes, and involving students in the evaluation of results; choice in connection with the individual characteristics of critical and incentive methods of evaluation as one of the possible options for stimulating activity, interest and the desire for self-improvement of students.

Conclusions

1. Physical training will be effective only if it is part of a broad rehabilitation program, at the center of which are psychological and social, and not only – training aspects. Training can be called health-improving if it passes on a positive psycho-emotional background, helps to relieve stress and relax the psyche, causing a state of rest and comfort.

2. Socio-pedagogical aspects of health training in general are characterized by the provision of a pedagogically directed process of psychophysical personality improvement based on the choice of the effective use of individually adequate means and their positive evaluation as a significant contribution to the social environment. In this sense, it is important to realize that the set of tools should be optimized for effective action on the human body.

3. Stimulating the students' interest in health improvement is ensured by pragmatic studies and the meaningfulness of their usefulness.

Prospects for further research are the development and implementation of innovative technology in the structure of the training professionally-oriented program of the military applied section.

Conflict of interests. The authors declare that no conflict of interest.

Financing sources. This article didn't get the financial support from the state, public or commercial organization.

References

1. Bekh, I. D. (1998), *Features, store*, IZMN, Kyiv. (in Ukr.)
2. Bulatova, M. M. & Usachov, Iu. A. (2008), «Modern sports and Wellness technology in physical education», *Teoriya i metodyka fizychnoho vykhovannya*, No. 2, pp. 320-354. (in Ukr.)
3. Verblyudov, I. B., Loza, T. O. & Cherednychenko, S. V. (2011), *Organization and methodology of physical culture*, SumSPU im. A. S. Makarenka, Sumy. (in Ukr.)
4. Hryban, H. P. (2012), «Analysis of motive activity of students of special education department», *Pedahohika, psykholohiya ta medyko-biologichni problemy fizychnoho vykhovannya i sportu*, No.2, pp. 25-28. (in Ukr.)
5. Zems'ka, N. O. (2012), «The attitude of students to physical education and sport», *Slobozans'kij naukovo-sportivnij visnik*, No. 5, pp. 26-30. (in Ukr.)
6. Koryahin, V. N., Blavt, O. Z. & Mudryk, I. P. (2012), «To the question of health status of University students», *Psykhologichni, pedahohichni ta medyko-biologichni aspekty fizychnoho vykhovannya*, No. 1, pp. 65-68. (in Ukr.)
7. Kryvenko, A. P. (2006), «Factors that determine the effectiveness of physical education of student youth», *Pedahohika, psykholohiya ta medyko-biologichni problemy fizychnoho vykhovannya i sportu*, No. 3, pp. 47-49. (in Ukr.)
8. Krutsevych, T. Yu. & Platonov, V. M. (2008), «Fundamentals of the theory of adaptation and patterns of its use in physical education», *Teoriya i metodyka fizychnoho vykhovannya*, No. 1, pp. 127-150. (in Ukr.)
9. Loza, T. O. & Khomenko, O. S. (2016), «The motivation of students of agricultural universities for physical culture and sports», *Sportyvnyy visnyk Prydniprova*, No. 3, pp. 115-118. (in Ukr.)
10. Mukhin, V. M. (2008), *Physical rehabilitation*, T. 2, Olimp. literatura, Kyiv. (in Ukr.)
11. Nosko, M. O., Yermakov, S. S. & Harkusha, S. V. (2010), «Theoretical and methodological aspects of strengthening of physical health of pupils and students», *Visnyk Chernihivs'koho natsional'noho pedahohichnoho universytetu imeni T H Shevchenka*, No. 2, pp. 243-247. (in Ukr.)
12. Oliynyk, T. (2003), «The formation of student's youth needs to maintain a healthy lifestyle», *Moloda sportyvna nauka Ukrainy*, No. 7, pp. 208-210. (in Ukr.)
13. Prykhod'ko, V. & Chernihivs'ka, S. (2016), «About the need of determining the place of «Physical education» in the reform of the domestic higher school in the context of competence approach», *Sportyvnyy visnyk Prydniprova*, No. 1, pp. 215-220. (in Ukr.)
14. Rozyn, V. M. (2011), *Psychological reality, ability and health*, Editorial URSS, Moscow. (in Russ.)
15. Sabirov, O. (2016), «The health of the student as a national cultural value in the European educational space», *Fizychno vykhovannya, sport i kul'tura zdorov'ya u suchasnomu suspil'stvi*, No. 2, pp. 16-19. (in Ukr.)
16. Sychoy, S. O. (2010), «Pedagogical conditions of introducing students to the values of physical culture on mandatory classes», *Pedahohika, psykholohiya ta medyko-biologichni problemy fizychnoho vykhovannya i sportu*, No. 3, pp. 82-86. (in Ukr.)
17. Khouly, E. T. & Frenks, B. Yu. (2004), *The instructor manual fitness and wellness*, Olimp. I-ra, Kyiv. (in Russ.)
18. Ts'os', A. & Kotov, Ye. (2008), «Program of independent performance of physical exercises of students of higher education institutions», *Fizychno vykhovannya, sport i kul'tura zdorov'ya u suchasnomu suspil'stvi*, No. 2, pp. 271-275. (in Ukr.)
19. Bailey, R., Macfadyen, T. (2000), *Teaching physical education*, Continium International Publishing Gr Kyiv oup.
20. Stidder, G. (2010), *The really useful physical education book*, Tatlor & Francis.

Received: 17.04.2017.

Published: 30.06.2017.

Information about the Authors

Tetiana Loza: Sumy State Pedagogical University name is A. S. Makarenko: Romenskaya str. 87, Sumy, 40002, Ukraine.

ORCID.ORG/0000-0001-5340-9545

E-mail: loza.tetyana@mail.ru

Olexander Khomenko: Sumy State Pedagogical University name is A. S. Makarenko: Romenskaya str. 87, Sumy, 40002, Ukraine.

ORCID.ORG/0000-0001-7509-9787

E-mail: sasha.khomenko.1985@bk.ru