Volume 2, Issue 1 January 2024 **ISSN (E):** 2938-3803

NEUROPSYCHIC FEATURES OF FITNESS PRACTICE

Dekhkonboeva Zulayxo Dilshod qizi
Alfraganus University Teacher of the Department "Pedagogy and Psychology"
zulaykhodekhkanbayeva@gmail.com

Abstract:
By doing general fitness, you can not only maintain or improve your health, but also regulate your mental (spiritual) state, while the dynamics of the neuropsychic characteristics of people involved in fitness are poorly understood, which determines the relevance of its research. We formulated the purpose of the study: to study the relationship between the physical and mental functions of the human body. In accordance with the purpose of the study, the following tasks were set: to conduct a theoretical analysis of psychological literature on the problem of the influence of physical education and sports on people's health, their neuropsychic state; consider the concept of "body image" in psychology; reveal the connection between the symbolism of physicality and the localization of the psyche; develop a research program to study the relationship between the physical and mental functions of the human body.

Keywords: neuropsychological state, corporeality, fitness, psychosomatics, interrelation between physical and mental functions of the female body, psychology of corporeality, work with the body.

Web of Humanities: Journal of Social Science and Humanitarian Research

Introduction

For the first time, representatives of the psychoanalytic direction pointed out the enormous role of physicality in the formation of a psychomatic symptom [1]. They talked about how physiological processes can be controlled through working with the body. At the same time, the psychology of physicality still remains an undeveloped area of scientific psychology. The theoretical and methodological basis for a fundamentally new approach to the psychosomatic problem can be the concept of L. S. Vygotsky, in whose texts we find the idea that human bodily processes need a new understanding. Thus, in excerpts from his notebooks we read: "What is needed is not physiological psychology, but psychological physiology... This will change all points of view in psychoneurology... We must move from a system of clear concepts (psychology) to physiology." Working with the body through movement helps to "revitalize" the neural connections between different parts of the body and the cerebral cortex. Graceful, smooth, continuously repeated movements send various types of impulses to our brain that are not characteristic of its usual state. Movements force the nervous system to function rhythmically, calmly, and over a wide range.

When the movements of our body are complete, plastic and smooth, we have a tendency towards complete action, an ordered worldview, and a smooth flow of thoughts.

Updating body plasticity expands the range of human reactions. By making movements that are unusual for us, we send new impulses to the nervous system, and this removes internal restrictions. You feel greater freedom and become psychologically liberated. A feeling of joy appears. By working with the body, we can enable the process of internal changes.

Modern trends in the global health movement are accompanied by the emergence of new terms and concepts in the field of this sociocultural phenomenon. One of these concepts is fitness, which

Volume 2, Issue 01, January 2024 **ISSN (E):** 2938-3803

has become widespread over the past decade, found in the names of clubs, health programs, etc. The word "fitness" (from the English "fit") has a very wide range of interpretations – fit, vigorous, adjusted, healthy [4]. The word "prepared" would correspond closest to its semantic meaning in Russian. However, this term is more consistent with "readiness" and "training".

In terms of its intended purpose, "fitness" is more consistent with the concept of "physical culture" generally accepted in our country. However, this broad concept is largely declarative, as if affirming the significance of only physical activity for human life. The conceptual framework of "fitness" has a more specific content and is an important component of the philosophy of success, which presupposes the need for a certain level of readiness to overcome life's difficulties (physical, psychological, emotional). Thus, "fitness" is a multidimensional concept, including a wider range of characteristics than just the level of physical condition. "General fitness" can be defined as the degree of balance of physical, mental, social states, having the necessary reserves to ensure current life activities, without physical and mental stress, in a state of harmony with the environment.

The ideology of general fitness is implemented in health programs that combine methods and means that combine physical activity (exercises) and mental actions aimed at regulating the mental (spiritual) state. An example of such an approach is a program like "Mind – Body fitness" [5]. There is another concept found in the literature - "Wellness", which is very close to the concept of "Total fitness". It can be defined as a balanced state of physical and spiritual being [6]. The mental and social components of general fitness characterize the level of their condition, which ensures an adequate behavioral response, the ability to withstand emotional stress and be in a state of harmony with the surrounding society. The structure of physical fitness identifies the main physical (motor) qualities that have a direct connection with health and reflect the level of functional state of individual vital organs and systems [7]. Thus, by doing general fitness, you can not only maintain or improve your health, but also regulate your mental (spiritual) state. We formulated the purpose of the study: to study the relationship between the physical and mental functions of the human body. In accordance with the purpose of the study, the following tasks were set: to conduct a theoretical analysis of psychological literature on the problem of the influence of physical education and sports on people's health, their neuropsychic state; develop a research program to study the relationship between the physical and mental functions of the human body.

Methodology

- theoretical analysis of scientific literature on the research topic;
- empirical:

• questionnaire of neuropsychic stress (NPN), proposed by T. A. Nemchin;

• conversation – a method of obtaining information based on verbal communication between the experimenter and the subject

- methods of statistical processing of results: assessment of the reliability of the shift in the values of the characteristic being studied - Wilcoxon T-test, assessment of differences between two samples in terms of the level of any characteristic

The study showed that classes in the fitness center help improve the quality and efficiency of people's mental activity, have a positive effect on their neuropsychic characteristics, body

Volume 2, Issue 1 January 2024 **ISSN (E):** 2938-3803

acceptance and self-perception.

We see further prospects for the development of our research work in the study of relationships between muscle groups, character structures, age periods and ego functions.

The influence of physical education and sports on the neuropsychic state of people. The significant role of physical exercise in preserving and strengthening people's health, maintaining a high level of performance has been proven by numerous studies conducted in Russia (A. N. Agadzhanyan, N. M. Amosov, R. E. Motylyanskaya , V.P. Lukyanenko, V.V. Gnevushev), which indicate that optimal physical activity in combination with a rational lifestyle is effective in overcoming and preventing many diseases and increasing life expectancy [8]. Constant research on the impact of physical education and sports on people's health is also being conducted abroad (Kayla Baker, Doctor of Science - Cornwall University; Martin Gibala, Doctor of Medical Sciences - Michigan State University; Kibin Key, Doctor of Medical Sciences - American Heart Association). For example, researchers at Cornwall University claim that excess weight has a detrimental effect on people's reproductive function. "Obesity alters the function of the ovaries and thereby entails the inability to form an embryo. The solution is moderate nutrition and physical activity," comments Kayla Baker, author of the study [9, p. 99]. Physical education and sports are very important factors in regulating the neuropsychic state of people. The process of the individual's adaptive reaction to changes in external or internal conditions consists in the functional interaction of the levels of functioning of the somatics and psyche, the functional interaction of which constitutes the structure of the mental state. A neuropsychic state is a certain level of performance and quality of functioning of the human psyche, characteristic of him at each moment in time. T. A. Nemchin [10] distinguishes two blocks in the structure of the mental state - information and energy. Information about the disposition of the individual and the parameters of the expected (needed) result stimulates brain structures that trigger activation processes of somatic regulation and provide the energetic basis for adaptation and adaptation to the situation. According to V.N. Myasishchev, "The level of activation of the central nervous system, the consequence of which is the level of activity and passivity of neuropsychic activity, is an objective component of the mental state. The second component is the subject's attitude, expressed in a person's experiences associated with objects and features of the situation."

Results

When assessing the neuropsychic state of people, in addition to physiological parameters, activity indicators are widely used. Particular attention must be paid to the nature of changes in activity - its improvement or deterioration; they are the basis for distinguishing two types of states: tension, which has a positive, mobilizing effect on activity, and tension, which is characterized by a decrease in the stability of mental and motor functions up to the disintegration of activity. Thus, P. B. Zilberman believes that the state of tension "should be considered as a hindrance and in no case should be confused with the state of tension that inevitably accompanies any complex activity, especially one that is performed at a level close to the limit of a given individual" [12]. That is, the term "tension" in this meaning does not contain an indication of the psychological characteristics of this state and is used in fact traditionally - to designate the active state of the body (in physiology and medicine, "tension" is understood as a state of increased functioning of the body and personality, tension of forces).

Volume 2, Issue 01, January 2024 **ISSN (E):** 2938-3803

Insufficient muscle tension (hypodynamia) negatively affects health (physiological functions), especially the cardiovascular system. With physical inactivity, the flow of proprioceptive stimuli is sharply reduced, which leads to a decrease in the lability of the nervous system at all its levels, the intensity of vegetative processes and muscle tone. When motor activity is limited, neurosomatic and autonomic reactions are distorted. In addition, physical inactivity leads to significant changes in homeostasis, functional disorders of the endocrine and cardiorespiratory systems, morphofunctional changes in the tissues of the musculoskeletal system, etc.

Adequate physical activity harmoniously shapes the human body in anatomical and functional terms and largely determines resistance to adverse environmental conditions and infectious diseases. Observations by domestic and foreign authors indicate that the optimal regime for physical education is at least three times a week for 45-60 minutes a day. Energy costs should be at least 500 kcal, that is, more than the daily basal metabolism.

Modern promotion of a healthy lifestyle creates more and more prerequisites for sports and fitness. In any magazine you can see several fashionable exercises to stay in great shape. All this undoubtedly influences people and creates incentives for them to come to the fitness club and start exercising. A survey of people who came to exercise at a fitness center gives grounds to assert that the initial motives are: the desire to change their figure, improve their health, get relief from stress at work and at home, and expand their circle of acquaintances [15]. Unlike professional sports, where the result is important and you are completely subordinate to it, fitness gives a completely different feeling. A sports club is a community where people are welcomed, where determination, spirit and mutual support are valued. In addition, physical exercise has a tonic effect, stimulating motor-visceral reflexes, they help accelerate metabolic processes in tissues and activate hormonal processes. With the appropriate selection of exercises, you can selectively influence motor-vascular, motor-cardiac, motor-gastrointestinal and other reflexes, which allows you to increase primarily the tone of the necessary systems and organs.

Thus, optimal physical activity in combination with a rational lifestyle is effective in overcoming and preventing many diseases and increasing life expectancy, as well as an important factor in regulating the neuropsychic state of people, maintaining the active state of the body

The main characteristics of neuropsychic stress that lead to a change in the average indicator:

1. Presence of physical discomfort. If “before” the training there were minor unpleasant sensations, then “after”, according to the study, most people did not have any unpleasant sensations. 2. Presence of pain. If “before” the training there were pain sensations that appeared periodically, then “after” the training there was no pain sensation completely. 3. Temperature sensations. Increase in body temperature “After” training, feeling of warmth. 4. Muscle tone. Moderate increase in muscle tone, feeling of some muscle tension “After” the workout. 5. Coordination of movements. Increasing ease, accuracy, coordination of movements, “After” training. 6. Motor activity. Increased motor activity, increased speed and energy of movements “After” training.

The most common characteristics of the second degree of neuropsychic stress are mobilization of neuropsychic activity, increased activity of somatic functioning and a feeling of a general rise in moral, mental, mental and physical strength. If at the same time individual unpleasant sensations from the somatic organs and systems are observed, they are masked, overshadowed by a general positive connotation, a positive emotional background, high spirits, an active desire to overcome

Volume 2, Issue 1 January 2024 **ISSN (E):** 2938-3803

difficulties and achieve high results in achieving the goal. Thus, with moderately expressed neuropsychic stress, not only the motivation to achieve a goal and the desire for energetic actions are clearly manifested, but satisfaction from the activity itself is also experienced. The subjects do not have a contradiction between their attitude towards the desired goal and their attitude towards the often difficult work on the way to achieving it, and therefore the efficiency and productivity of their activities turn out to be high. With moderately expressed mental stress, significant positive changes are observed in mental activity:

– the effectiveness of the basic properties of attention increases: its volume increases, attention becomes more stable, the ability to concentrate on the task at hand increases, and distractibility decreases. An increase in the productivity of attention functions is also associated with a slight decrease in the switchability of attention, which ensures the individual's concentration on solving the main tasks facing him in a given extreme situation;

– the memory function changes, although the modification of the mnemonic function under stress does not have such a distinct and holistic positive character as the attention function. If the volume of short-term memorization increases, then the individual's ability for long-term verbal storage either remains practically the same or shows a tendency to decrease;

– the productivity of logical thinking increases. It is natural to believe that increasing the productivity of logical thinking, as one of the important mental functions, should be associated with the activation of other mental processes discussed above. We can say that with second degree tension there is an increase in the efficiency of cognitive activity in general;

– the accuracy of movements increases, the number of errors decreases.

Based on the results of the study, we can conclude that doing fitness leads to an increase in neuropsychic stress, while the degree of prevalence of signs of stress, the duration of the state of stress, and the general degree of severity remain almost unchanged. An increase in signs of neuropsychic stress occurs due to changes in temperature sensations, increased coordination of movements, increased muscle tone, increased speed and energy of movements, redness of the facial skin, increased breathing, moderate increased sweating, etc.

After training, according to the results of the study, most people have a feeling of concern, their mood becomes elevated, a feeling of elation appears, pleasant satisfaction with work or other activities, a feeling of self-confidence comes, faith in success, unpleasant physical sensations and pain disappear. The effectiveness of the basic properties of attention increases, the function of memory changes, the productivity of logical thinking increases, one might say, there is an increase in the efficiency of cognitive activity in general.

Thus, a moderate degree of neuropsychic stress is characterized by an increase in the quality and efficiency of mental activity and represents a form of an individual's mental state in which a person's abilities to achieve a goal and perform a particular job are fully revealed. With the second degree of severity of NPN, changes are observed in the dynamic characteristics of the nervous system, which can be qualified as an increase in the level of its activation

Conclusion

Today, interest in physicality is increasing, because the shift in emphasis to the intellect and the "isolated" mentality has not helped a person achieve harmony and prosperity. Moreover, ignoring the body and underestimating its most complex functions not only did not make it possible to

Volume 2, Issue 01, January 2024 **ISSN (E):** 2938-3803

effectively “treat” psychological conflicts, but in many cases increased their negative impact.

Assessing physicality is, first of all, assessing the appearance of the body, its image. Looking at yourself is looking at your own body, which is part of understanding yourself. Not accepting something in your body creates “holes” that cannot be filled. The result is a distorted image of oneself and the body.

At the heart of all cases of non-acceptance of one’s own body or certain areas of it, there is a conflict between the real and ideal body image. By changing your body and external image, you can achieve internal changes.

We have proven that doing fitness leads to an increase in neuropsychic stress. A moderate degree of neuropsychic stress is characterized by an increase in the quality and efficiency of mental activity, a person’s ability to achieve a goal and perform a particular job is revealed. The level of activation of the nervous system increases.

REFERENCES

1. Хасанова, Н., & Дехконбоева, З. (2023). Motivational determinants of youth involvement in fitness practices. *Узбекистан-2030: наука, образование и экономика в развитии*, *1*(1), 81-85.
2. Дехконбоева, З. Д. (2023). Психологические факторы вовлеченности в фитнес практики. Вестник интегративной психологии, 2(30), 115-121.
3. Дехконбоева, З. Д., Гаффарова, М. И. (2023). Самоэффективность как предикт изучения вовлеченности личности в фитнесс практики. Личность и общество: вызовы современности, 1(1), 304-307.
4. Дехконбоева, З. Д. (2022). Образ тела личности как фактор вовлечения в фитнесс практики. Конференция, 1(1), 337-340.
5. Дехконбоева, З. Д. (2021). Мотивационные детерминанты вовлеченности молодежи в фитнес практики. Халқаро илмий-амалий конференцияси материаллари, 1(1), 154-155.
6. Chodieva, R. S. (2023). Psychological features of creative thinking in personality development. *American Journal of Interdisciplinary Research and Development*, *14*, 120-122.
7. Saydullayevna, S. R. (2020). Psycho-Diagnostic competence: As a predicator of successful pedagogical experience. *South Asian Journal of Marketing & Management Research*, *10*(4), 33-38.
8. Djumaniyazovna, M. A. (2021). The Importance of Innovation Clusters In The Construction Of The Third Renaissance Foundation. *The American Journal of Social Science and Education Innovations*, *3*(06), 194-197.
9. Abdullaeva, M. D. (2021). The importance of familiarizing preschool and primary school children with the social norms of speech. *Academicia: An International Multidisciplinary Research Journal*, *11*(1), 920-925.
10. Saydullayevna, S. S. (2023, December). Talabalarni individual-psixologik yondashuv asosida intellektual rivojlantirish. In *Proceedings of Scientific Conference on Multidisciplinary Studies* (Vol. 2, No. 12, pp. 117-120).

Volume 2, Issue 1 January 2024 **ISSN (E):** 2938-3803

11. Kamalovna, Y. S. (2023). Shaxsiy gigiyenaga rioya qilish va sog ‘lom turmush tarzini yo ‘lga qo ‘yish-reproduktiv madaniyatni shakllanishidagi muhim mezon. *Journal of innovations in scientific and educational research*, *6*(5), 100-103.
12. Shavkatovna, A. N., & Batirovna, R. G. (2023). Preschool education cluster: cooperation of higher education institutions and pre-school education organizations. *Finland International Scientific Journal of Education, Social Science & Humanities*, *11*(1), 1056-1067.
13. Shavkatovna, A. N., & Batyrovna, R. G. (2023). Training-laboratory cluster as an innovative mechanism of improving the quality of education in school educational organizations.
14. Rakhmonova, G. U. (2023). Successive development of the creative person in the continuous education. Spanish Journal of Innovation and Integrity, 1(4), 115-118.
15. Boxodirovna, T. D., Abdushoripovna, R. H., & Ubaydullayevna, R. G. (2022). Analysis of competitive activity martial artists. *Open Access Repository*, *8*(03), 162-164.
16. Karimova, Z. (2024). Editorial Problems of Organizing the Innovative Activity of Preschool Education Organization Editors Under Educational Cluster Conditions. *Pedagogical Cluster-Journal of Pedagogical Developments*, *2*(1), 1-10.
17. Karimova, Z. A. (2023). Model of preparation of educators of preschool educational organizations for innovative activities. *Web of Teachers: Inderscience Research*, *1*(9), 102-111.
18. Karimova, Z. A. (2024). Организация коррекционно-образовательной воспитательной работы с детьми. Тенденции развития образования и педагогики, 1(1), 185-194.
19. Karimova, Z. A., Ganiyeva, G. T. (2023). Yengil dizartriyali bolalarda monologik nutqni rivojlantirish. Raqamli texnologiyalarni o‘quv jarayoniga joriy etish, 1(1), 788-794.
20. Nafasov, D. Sh. (2023). Abu Rayhon Beruniyning gender tenglikni ta’minlash sohasidagi qarashlari. Xalqaro miqyosda ilmiy-amaliy anjuman materiallari, 1(1), 41-43.
21. Nafasov, D. Sh. (2023). Abu Rayhon Beruniyning tarbiyaviy qarashlari asosida yoshlarni ma’naviy-axloqiy sifatlarini shakllantirish. Xalqaro miqyosda ilmiy-amaliy anjuman materiallari, 1(1), 82-85.
22. Saparbaeva, D. T. (2023). Fundamentals of Organizing Independent Education in Primary Education in Uzbekistan. Diversity Research: Journal of Analysis and Trends, 1(3), 147-155.
23. Jabborova, O. M., Saparbaeva, D. T. (2023). Modern requirements for the principles of educational organization. Emergent: journal of educational discoveries and lifelong learning (EJEDL), 4(1), 31-35.
24. Jabborova, O. M., Saparbaeva, D. T. (2023). Individual practice of the principles of organizing the educational process in primary education. Web of Scientist: International Scientific Research Journal, 4(1), 29-33.