

ЕКСПЕРИМЕНТАЛЬНІ ТА ПРИКЛАДНІ ДОСЛІДЖЕННЯ

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ANALYSIS OF THE CONCEPT AND FACTORS SUPPORTING THE SUBJECTIVE VITALITY OF A PERSON

Метою статті є розглянути феномен вітальності згідно з різними науковими теоріями; здійснити аналіз можливих причин виснаження та підвищення життєвої енергії особистості; проаналізувати результати експериментального дослідження, спрямованого на вивчення психологічних особливостей вітальності на прикладі представників парашутного спорту та практики йоги; описати механізм впливу досліджуваних видів активності на рівень суб'єктивної вітальності; розробити загальні рекомендації щодо підтримання життєвої енергії особистості на сприятливому рівні.

Використано наступні методи. Із групи емпіричних методів: психодіагностичний метод (тести); із групи методів аналізу (обробки) даних: якісний та кількісний аналіз отриманих результатів, методи комп'ютерної обробки експериментальних даних. Використано методичку дослідження суб'єктивної та диспозиційної вітальності Р. Райана і К. Фредеріка. У дослідженні прийняло участь 270 респондентів віком від 22 до 50 років, серед них 90 представників практики йоги, 90 представників парашутного спорту та 90

респондентів контрольної групи. Емпіричне дослідження здійснювалося на базі: Студія йоги «Симетрія» та фестиваль йоги та музики «Аватар»; АК «Авіа-Союз» ДЗ «Майське». У всіх учасників дослідження була отримана інформована згода на участь в дослідженні.

Представлено теоретичний аналіз феномену суб'єктивної вітальності як психологічного феномену, висвітлено її особливості з точки зору різних тлумачень. Проаналізовано психологічні та фізіологічні фактори підвищення життєвої енергії та розглянуто причини її виснаження. Здійснено аналіз результатів проведеного емпіричного дослідження, метою якого було експериментально дослідити психологічні особливості суб'єктивної вітальності у представників практики йоги та парашутного спорту. Обґрунтовано механізм впливу досліджуваних видів активності на рівень життєвої енергії людини.

В результаті проведеного дослідження визначено високий рівень суб'єктивної вітальності як стану та диспозиційної вітальності як особистісної якості у представників практики йоги та представників парашутного спорту. Здійснено порівняльний аналіз результатів з показниками контрольної групи, що вказує на прямий позитивний вплив практики йоги та парашутизму на загальний рівень життєвої енергії особистості. Визначено, що рівень суб'єктивної вітальності у парашутистів наприкінці стрибкового сезону знижується. Розроблено спеціальні загальні рекомендації щодо підтримання досліджуваного показника на сприятливому рівні.

Ключові слова: вітальність, життєва енергія, особистісний потенціал, суб'єктивне благополуччя, йога, медитація, парашутний спорт, екстрим.

Introduction. The development of modern society has reached an extremely high level of development in the field of information technologies and material production. But despite social and economic successes, the issue of increasing the subjective well-being of a person over time is becoming increasingly acute. The modern pace of life and constant stress contribute to the exhaustion of a person's internal energy reserve. More and more people are looking for ways to obtain resources and increase the level of vitality. For this purpose, people are engaged in various types of activities that provide internal resources, relieve stress, and contribute to the maintenance of adequate «energy supply» necessary for the realization of manifestations of their vital activities.

Among the variety of spheres of activity that people are engaged in to replenish the internal reserve, we paid attention to parachuting and practicing yoga. We assume that these, at first viewpoint, very different types of activity have a common effect, namely, maintaining the level of subjective well-being of a person at a high level.

We consider it necessary to highlight and investigate the peculiarities of the vitality phenomenon and experimentally investigate the influence of yoga practice and parachuting on the level of vital energy of an individual. Along with this, as a result of the research, we aim to develop general recommendations for increasing the level of vital energy and maintaining it at a favorable level.

Theoretical substantiation of the problem. Vitality is defined as the subjective experience of having physical and mental energy. With a high level of vitality, a person feels that he/she is full of enthusiasm and vitality. Thus, vitality is associated with a feeling of power, strong positive experiences and calm energy.

The concept of subjective vitality was introduced into psychology by R. Ryan and C. Frederick. Since objective indicators of a person's vital energy have not been developed, they focused on vitality as a subjectively perceived state that reflects the fullness of a person's vital forces and energy.

R. Ryan and C. Frederick define vitality as a person's conscious experience of being full of energy and life and consider it as a reflection of a person's physical and psychological well-being. This is a phenomenologically based criterion, the content of which differs from external indicators of well-being, such as success, health, social support and personal achievements (Ryan, 2015).

In foreign and domestic psychology, subjective vitality was denoted by such concepts as will, «Ego» strength, internal support, locus of control, action orientation, will to meaning, etc.

S. Freud invented and described the economic model of vitality, according to which mental energy was defined as a limited resource. The author claimed that spending energy on psychological defenses significantly exhausts a person, which negatively affects the level of subjective well-being. Most of the models, which in one way or another considered the vital energy of a person, mainly focused on factors that blocks and exhausts it, without touching factors that contributes to its preservation and strengthening.

Representatives of the Eastern tradition, on the other hand, have for centuries been more concerned with the question of how to increase psychic energy through spiritual, meditative, or physical practices. In these approaches, vitality is understood as an active internal force that supports mental and physical health and requires a person's careful and effective attitude towards it in order to reach the optimal limit of its existence (Belik, 2017).

Most models indicate that increased subjective well-being should be accompanied by a high level of independence and integrity or self-actualization. The vitality model, which arose within the framework of the theory of self-determination, is built on the basis of several key assumptions. First, more autonomous self-regulation is less energy-consuming, as it requires less suppression and control. Secondly, those activities that are aimed at satisfying basic psychological needs should be accompanied by maintaining or increasing the level of energy, and vice versa. Thirdly, a lifestyle based on internal purposes is associated with an increase in vitality, while a life based on imposed purposes is not associated with its increasing and development. With autonomous motivation, activity increases vitality and productivity, but it, based on external coercion, reduces the feeling of vital energy and the efficiency of task performance (Ryan, 2011).

Research, which is presented by the results of a series of empirical studies, significantly expands the concept of subjective vitality and proves that it has an important role in the process of overcoming difficult life circumstances, in the development of a person, being not only a measure of psychological well-being, but also a full-fledged personal resource that reflects various aspects of personal potential (Kuzikova, 2022; Tunçkol, 2015; Yazıcı, 2021).

The level of subjective vitality can be influenced by other factors, such as love and closeness between people, with which the need for belonging is closely related. The need for involvement, connections, relationships is also one of the main psychological needs identified by the theory of self-determination. People of all ages are more resilient to stress and live more fulfilled lives with less psychological distress when they have significant others with whom a close connection is established in the form of love and affection (Uysal, 2016; Sivaramakrishnan, 2019).

Subjective vitality is recognized as an indicator of the psychological well-being of a person. This energy correlates not only

and not so much with a person's physical condition, but with his/her psychological well-being. Self-determination (autonomy), competence (mastery) are defined as conditions that contribute to healthy development and strengthening of subjective vitality, because due to the ability to choose and have a choice (self-determination), a person acts not on the basis of obligations or compulsions, but on the basis of awareness his/her needs.

Methodology and methods.

Participants. 270 respondents aged 22 to 50 took part in the research, among them 90 representatives of yoga practice, 90 representatives of parachute sports and 90 respondents of the control group. Empirical research was carried out on the basis of: Yoga Studio «Symmetry» and Yoga and Music Festival «Avatar»; AC «Avia-Soyuz», «Mayske».

The respondents of the group of yoga practitioners were men and women who have different experience in yoga practice (from 6 months to 15 years) and devote time to classes from three to five times a week.

The respondents of the group of extremes were men and women with different experience of parachuting (from 10 jumps to 4000 jumps).

The respondents of the control group were men and women of various professions who have never practiced yoga and do not engage in physical activity.

Research organization. The research was conducted in several stages:

1. Analysis of literature and information sources on the issue of vitality among representatives of parachuting sports;
2. Carrying out an experimental research of the psychological features of vitality using methodological tools;
3. Summarizing the results of experimental work, summing up.

Statistical analysis. To achieve the purpose of the research, a set of complementary research methods was applied: methods of system analysis, methods of causal analysis, methods of comparative analysis, methods of direct structural analysis. From the group of empirical methods: psychodiagnostic method (tests); from the group of methods of data analysis (processing): qualitative and quantitative analysis of the obtained results, methods of computer processing of experimental data.

The following methodological toolkit was selected: The Subjective Vitality Scale (SVS: Ryan & Frederick).

The results. The results of an empirical research of the level of subjective vitality as a condition show that among parachutists the most pronounced levels of this indicator are high (42%) and average (38%), while 20% of the respondents of the mentioned sample demonstrate a low level of vitality. As for representatives of yoga, most of the participants have a high level of vital energy (51%), 40% of the subjects have average indicators, and only 2% of representatives of yoga demonstrate a low level of vitality as a condition.

During our research, we compared the results of the two samples described above with the results of a control group that does not engage in similar activities and obtained the following result: the largest percentage of respondents (39%) had an average level of the studied indicator, 31% had a high level, and 30% of the subjects were diagnosed with low level of vitality as a condition.

So, the most favorable results are shown by the representatives of yoga, among whom there are almost no respondents who, at the time of the research, feel a very limited volume of vital energy, loss of strength and expressed reluctance to act. At that time, among parachutists there are slightly more respondents with such results, but in this sample, indicators that show fullness of energy, enthusiasm and readiness for action also prevail.

Instead, the results of the control group turned out to be the least positive, showing the lowest percentage of high vitality scores and the highest percentage of low vitality among the three samples. This definitely indicates that activities such as parachuting and yoga have a direct effect on the level of vital energy and its components. But, we assume, the sources of energy production in the researched types of sports activities are oppositely different.

Investigating dispositional subjective vitality, which is the level of vital energy which is characteristic of a person throughout life and is more a character trait than a condition, we obtained a somewhat similar result (see Fig. 1).

However, comparing the results of the research of subjective vitality as a state and dispositional vitality as a character trait, it can be seen that the results of all three samples in the second part are more positive, but the yoga representatives still show the most favorable indicators, and the control group shows the lowest results.

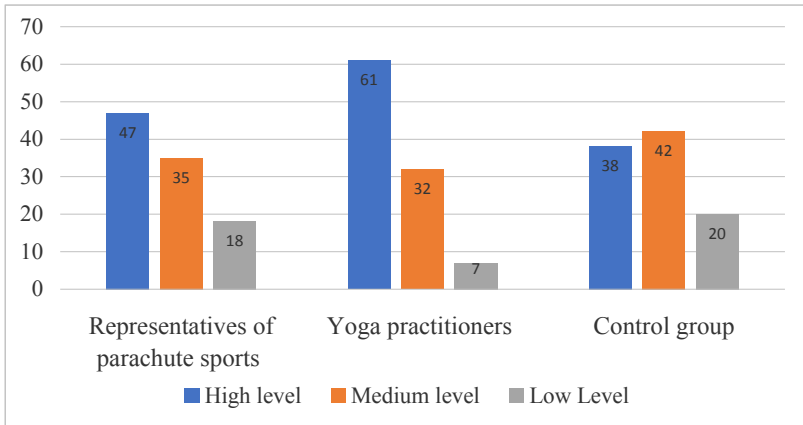


Fig. 1. Indicators of dispositional subjective vitality in representatives of various sports activities

The high results obtained by yoga representatives are explained by several factors. Respondents of the research were people who practice yoga 3 times a week for one and a half hours. Yoga is a universal system of self-discovery and spiritual development, the practice of which includes regular physical exercises with the performance of special exercises that normalize all body processes and lead to physical and psychological health. Yoga is a holistic system of philosophy and practice for improving character, personality, body and spirit. The overall purpose of yoga is to gradually master the body, senses and mind. As we know, exercise is therapeutic for both physical and mental health, the practice of the physical aspect of yoga has been developed over the centuries by Eastern culture and has been adapted to modern people of our continent. Physical exercises, which in yoga are called asanas, are the most effective and useful for all systems of the human body and psyche. Moreover, yoga does not end only with physical exercises. In addition to them, in practice there are mandatory breathing techniques (pranayama) and a special way of eating, which allows you to maintain the body in a healthy state (Boyko, 2008).

Pranayama is the fourth degree of yoga. Pranayama refers to the performance of various cleaning breathing exercises and the practice of holding the breath. According to the rules of classical yoga, air should enter through the nose, breathing is done through the

stomach, not the chest. This type of breathing is called diaphragmatic relaxation, when the lungs open completely and more oxygen enters the brain. Calm, superficial breathing with the belly has a beneficial effect on the activity of consciousness, and introduces a clear, meditative state. There are many breathing exercises in the practice of yoga, and they all have one purpose – to increase vital energy, which in yoga is called prana. Prana is a dynamic energy that provides the forces necessary for the human body to work (Iyengar, 2014).

It should be noted that psychology and physiology also indicate the therapeutic effect of various breathing techniques. If we translate this into the language of modern physiology, then we get the following: inhalation stimulates mainly the sympatho-adrenaline system, that part of our autonomic nervous system that is responsible for activation, and exhalation stimulates the vagus nerve system, parasympathetic, which is mainly associated with calming and relaxation, a feeling of warmth and comfort. That is, if we focus on inhaling while breathing, we get excited, and if we exhale, we calm down and relax. Inhalation is physiologically related to the mobilization of the body, the rise in blood pressure, the increase in pulse rate; exhalation, on the contrary, with relaxation, a decrease in heart rate, and a decrease in pressure (Lowen, 2015).

So, by associating breathing with energy, yoga teaches how to control it, how to raise it, calm it down and regulate it. Regular breathing in tandem with exercise and a healthy diet leads to an increase in vitality.

Also, the practice of yoga is considered by psychology as one of the types of body-oriented psychotherapy. A properly structured yoga practice is a full body-oriented psychotherapeutic practice. In addition, absolutely all new techniques of this type of therapy can be considered one or another modification or separate exercises of yogic practice. Many of them were borrowed directly from yoga. Body-oriented psychotherapy is the healing of the psychological component of a person through work with the body. All conscious and unconscious psychological traumas are reflected in the body. A person carries fears, images, and stressful situations in his/her body in the form of various types of tension, blocks, and constrained states. And over time, these tensions become absolutely normal for a person, even though they are pathological. The practice of yoga is

aimed precisely at working with the parts of the human body where the greatest muscle tension occurs.

Pranayama techniques provide an amazing relaxing or toning effect, which is achieved by activating the work of the parasympathetic or sympathetic nervous system. The full breathing of yogis increases the volume of inhaled and exhaled air several times, the entire vital capacity of the lungs is activated, which leads to the saturation of the body with oxygen and the accumulation of carbon dioxide in the cells. It has been scientifically proven that a lack of carbon dioxide leads to spasms of skeletal muscles. Therefore, learning to breathe properly is an integral part of therapy to relieve muscle tension. Since the full breathing of yogis includes work with the abdominal cavity, diaphragm, and chest, the zones of the so-called shell, which must be removed in order to solve complex psychological problems, are worked out. And, of course, the variety of asanas, aimed at working out and relaxing both a certain area and body as a whole, is a unique toolkit for body-oriented therapy. In our opinion, such a psychotherapeutic effect of yoga contributes to the increase of human energy in connection with the fact that it provides an opportunity to live and work through repressed emotions, which in turn are associated with the exhaustion of vitality (Bleicher, 1996).

As a result of the research of the vitality of representatives of parachuting sports, quite positive indicators were also obtained, which are significantly different from the results of the control group. We noted that the sources of energy of yogis and representatives of parachuting sports are different, because yogis draw it from the inside, and representatives of parachuting sports find it outside. We consider it necessary to explain the mechanism of increasing vitality in representatives of parachuting sports.

In our opinion, the level of internal energy among the respondents of this sample increases due to increasing the adrenaline hormone in the blood. Adrenaline is a molecule that our body releases in situations of anxiety or stress. When we understand that something is in danger. Thanks to this substance, various processes are launched in the body that make the body react to a potential threat or danger. The actions of adrenaline are aimed at realizing a specific purpose: to promote energy production, to help us act and react quickly, to prepare our body for maximum productivity.

Adrenaline enters various organs and parts of our body with the help of blood, where it produces specific effects, the result of which

is the activation of the body: dilation of the respiratory tract to increase the supply of oxygen to the body, narrowing of blood vessels, increase in heart rate, etc.

Adrenaline has a stimulating effect on the central nervous system, although it poorly penetrates the blood-brain barrier. It increases the level of wakefulness, mental energy and activity, causes mental mobilization.

In addition to adrenaline, dopamine, a chemical belonging to the group of catecholamines, is also released during extreme parachuting activities. It is involved in signal transmission between nerve cells. In the brain, the role of the «center of positive emotions and pleasure» is performed by the limbic system. The release of dopamine by neurons activates it and gives a person a sense of pleasure, lifts the mood. It can be said that this compound is the molecule of pleasure, which is synthesized in the central nervous system (Lowen, 2015).

In our opinion, the obtained research results are due to the fact that parachuting changes a person's self-attitude and self-esteem. This sport involves competitions that are necessarily held in teams. The taste of victory and the feeling of being important, being part of a team, affects the sense of self-worth and success. In addition, a person who engages in such activities is constantly in a significant group of people and feels a sense of belonging to it, which also applies to representatives of yoga. Doing what you love, communicating with like-minded people and the taste of victory increase the level of vital energy.

Comparing the obtained result with the indicators of yoga representatives, we consider that increased vitality is also related to the experience of emotions by parachutists. After all, parachuting does not provide an opportunity for the human psyche to displace emotions, the individual meets the emotion directly, experiencing it, as a result of which it releases the energy that was previously used to suppress unpleasant emotions. At the same time, yoga stimulates the feeling of those emotions that have been displaced by the psyche, but with the help of physical exercises and breathing.

To maintain a high level of life energy of parachutists, there must be regularity of sports parachuting activities. But, as we know, in our climate this is not possible due to cold weather. Therefore, we have an assumption that the level of vital energy at the beginning and at the end of the season will differ among parachutists. The parachute season starts in April-May and ends in October-November. The first stage of the research was the period when parachutists make many jumps every weekend, and the second stage was the period when the frequency of jumps is rapidly declining. The results of the level of subjective vitality as a condition of parachutists at the beginning and at the end of the season are presented below (see Fig. 2).

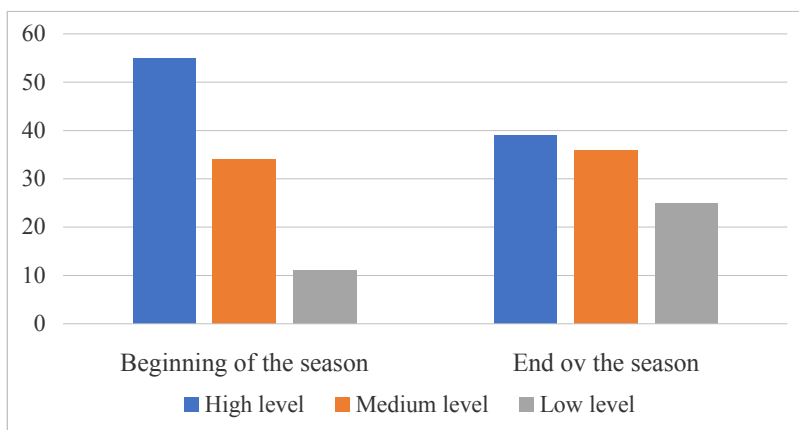


Fig. 2. The level of subjective vitality as a condition of representatives of parachute sports at the beginning and at the end of the jumping season

As a result of the conducted research, we confirmed our assumption that the level of vital energy of parachutists changes from the beginning to the end of the season. At the beginning of the season a high level of vital energy is demonstrated by 55% of respondents, but at the end of the season already 39%, while a low level of vitality, which is characterized by a decline in strength, increased from 11% to 25%.

So, receiving a lot of emotions, provoking the release of adrenaline and dopamine hormones, the parachutist significantly increases the level of subjective vitality, but after the jumps, the level of vital energy gradually decreases. It should be noted that most

people who practice this sport, after the end of the parachute season, engage in winter activities such as skiing and snowboarding, which allows them to maintain their vital energy levels at an optimal level.

Having researched the psychological features of the vitality phenomenon, we have developed recommendations for increasing person's internal energy and achieving psychological vitality.

The basis of maintaining the proper level of internal resources is primarily work with the body and its health. A person should regularly do sports, eat healthy food, get a good night's sleep and drink clean water. The duration and quality of our life is related precisely to with the training and endurance of our body. Regular exercise is the easiest way to increase vital energy. Exercise increases breathing and blood circulation, which means that every cell in your body receives more oxygen and nutrients than at rest. And the better your cells feel, the better you feel and the more energy you have.

Hobbies, learning new types of activity, communicating with a significant group and receiving new experiences are also effective ways to increase the level of vital energy.

It should be noted that various stresses reduce vitality and a sense of psychological well-being. Therefore, we must learn to master stress and relax. Special breathing techniques are a very effective method of increasing energy at all levels. We recommend breathing exercises to increase the level of internal energy, which are borrowed from the practice of yoga or body-oriented psychotherapy.

Conclusions. Thus, we researched the psychological features of vitality in representatives of yoga and parachuting. High indicators of subjective vitality as a state and dispositional vitality as a personal quality were found in the studied groups of respondents. A comparative analysis of the obtained results with the indicators of the control group indicates a direct positive effect of the practice of yoga and parachuting on the general level of vital energy of the person. It was determined that the level of subjective vitality of parachutists at the end of the jump season significantly decreases.

After analyzing the obtained data, we came to the conclusion that the basis of maintaining the proper level of internal resources is primarily work with the body and healthy feeling of emotions. Low level of activity, suppression of emotional reactions and stress deplete a person's energy reserves. In addition, hobbies, mastering new types of activity, communication with a significant group and

receiving new experiences are also effective ways to increase the level of subjective vitality.

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S. Kuzikova, T. Shcherbak

ANALYSIS OF THE CONCEPT AND FACTORS SUPPORTING THE SUBJECTIVE VITALITY OF A PERSON

The purpose of the article is to review the phenomenon of vitality according to various scientific theories; to analyze the possible causes of exhaustion and increase the vital energy of the individual; to analyze the results of an experimental study aimed at research of the psychological features of vitality on the example of parachute sports and yoga practice representatives; to describe the studied types of activity on the level of subjective well-being influence mechanism; to develop general recommendations for maintaining a person's vital energy at a favorable level.

The following methods were used. From the group of empirical methods: psychodiagnostic method (tests); from the group of methods of data analysis (processing): qualitative and quantitative analysis of the obtained results, methods of computer processing of experimental data. The method of subjective and dispositional vitality research of R. Ryan and K. Frederick was used. 270 respondents aged 22 to 50 took part in the study, among them 90 representatives of yoga practice, 90 representatives of parachute sports and 90 respondents of the control group. Empirical research was carried out on the basis of: Yoga Studio «Symmetry» and Yoga and Music Festival «Avatar»; JSC «Avia-Soyuz» DZ «Mayske».

A theoretical analysis of the subjective vitality as a psychological phenomenon is presented; its features from the point of view of various interpretations are highlighted. The psychological and physiological factors of increasing vital energy were analyzed and the reasons for its depletion were considered. An analysis of the conducted empirical research results was carried out, the purpose of which was to experimentally investigate the psychological features of subjective well-being among representatives of the practice of yoga and parachuting. The mechanism of the researched types of activity on the level of human vital energy influence is substantiated.

As a result of the conducted research, a high level of subjective well-being as a state and dispositional well-being as a personal quality was determined in representatives of yoga practice and representatives of parachuting sports. A comparative analysis of the results with the indicators of the control group was carried out, which indicates a direct positive effect of the yoga practice and parachuting on the general level of vital energy of the individual. It was determined that the parachutist's level of subjective well-being decreases at the end of the jump season. Special general recommendations for maintaining the investigated indicator at a favorable level have been developed.

Key words: *vitality, vital energy, personal potential, subjective well-being, yoga, meditation, parachuting, extreme.*

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