

## Features of the integral (somatic, mental, spiritual) health of students (a case based on students from Kyiv universities)

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Published online: October 30, 2021

(Accepted for publication October 15, 2021)

DOI:10.7752/jpes.2021.s5398

### Abstract

At the present stage of social development, leading scientists in the field of information technologies have proposed a method of quantifying individual health as the trinity of its physical (somatic), mental and social (spiritual) statuses. Individual health testing should be performed out online on a personal computer using a single software package. Undoubtedly, this cybernetic method in the assessment of the health status will be used widely in the nearest future. However, in our opinion, we should not neglect the simple, affordable, not requiring computer technology, material costs and proven methods. On the basis of many years of researches done by the authors, substantiated methodology and methods for quantifying the level of integral (somatic, mental, spiritual) health of the person as the person are proved. It is advisable to use the express-method developed by us in the pedagogical practice when conducting health-improving trainings in order to self-control the effectiveness of physical loads and can be used in the preventive medicine as a screening test to assess the main components of the human health. The study involved students (boys and girls) 17-21 years of Kyiv Universities, who did not go in for sports (experimental group, n = 626), among them: students of the Faculty of Social Technologies of the Open International University of Human Development "Ukraine" (further University "Ukraine") (n = 163), Faculty of Physical Education and Sports of the National Pedagogical Dragomanov University (n = 235) and the Faculty of Health, Physical Education and Sports of Borys Grinchenko Kyiv University (n = 228). The control group consisted of their peers - student athletes (boxers, wrestlers, cyclists, skiers) of the Brovary Higher School of Physical Education (Kyiv region) (N = 75). The analysis of the results of the study showed that the integral health of non-athletes students is assessed as "satisfactory". The athletes-students have the highest level of absolute health. However, if the athletes-students have a high level of integral health indicators, mainly due to an increase in the average values of somatic health indicators and the lower level of spiritual health, then among the non-athletes students, a satisfactory level of health, on the contrary, is mainly achieved due to the higher values of spiritual and mental health indicators and, accordingly, to the lower somatic health indicators. The male and female students of the University "Ukraine" and female students of Borys Grinchenko Kyiv University have the highest level of spiritual health indicators.

**Keywords:** integral health, research, students, adolescence.

### Introduction

Health is known to be one of the most important factors in the human value system. Outstanding physiologist I.P. Pavlov believed that only a healthy, strong and intelligent person can fully enjoy the delights of life. According to the WHO interpretation, health is a state of complete physical, mental and social well-being and not just the absence of diseases and physical defects (World health statistics, 2005). However, this definition defines health only in descriptive categories of well-being and is not a method for quantifying it. In this regard, to solve this problem, G.L. Apanasenko developed an express method for quantitative assessment of the somatic health of people (without physical limitations) (Apanasenko, 1992).

Many scientists continued to study this topic, in particular, M.F. Khoroshukha, developed an express method for assessing the somatic health of persons with musculoskeletal disorders (Khoroshukha et al., 2016, 2020), and S.N. Ivaschenko substantiated the use of these methods in relation to the contingent of persons with mental health problems that arose against the background of quarantine restrictions during the COVID-19 pandemic (Ivashchenko, 2019, 2021). Despite the simplicity and availability of L. Apanasenko's express method, its widespread use in clinical, rehabilitation and scientific fields has certain limitations, which is confirmed in a number of dissertations, where this method was used to study the somatic health of athletes (Bublely, 2018; Prontenko, 2018). In addition, there is evidence of the irrationality of using this method to assess the somatic

health of highly qualified athletes (Apanasenko, 2000; Khoroshukha et al., 2019). The reason for this is the presence of significant differences in the structure of energy metabolism against the background of training loads on the body of athletes in different age groups.

Scientists of the International Scientific and Educational Center of Information Technologies of the National Academy of Sciences of Ukraine, together with the staff of the Ministry of Education and Science of Ukraine, have developed an information-structural model of the concept of health as a trinity of physical, mental and social status. This made it possible to expand the scope of knowledge about health, create a multi-criteria assessment of health (according to the health index) and solve the problem of screening and monitoring during a mass survey of all categories of the population in Ukraine (Belov et al. 2017). According to the data of the above-mentioned authors, the information structure of integral health is presented in the form of a branched tree with five levels: *the first level* - individual integral health; *the second level* is formed by the statuses of integral health: 1) physical (physical health), 2) mental (mental health), 3) social (social or spiritual health); *the third level* is formed by the components of the mentioned health statuses, each of which has its own structure and function; *the fourth status* forms the components, and *the fifth status*, respectively, forms the individual indicators of all components of integral (absolute) health. The system of rapid diagnostics of individual health proposed by the authors includes a large arsenal of tests and methods, which are classified according to three (physical, mental, social) components of integral health.

In addition to what was said above, we can add that testing should be carried out online on a personal computer using a single software package. Undoubtedly, this cybernetic method in assessing health status does not have far-reaching prospects. However, in our opinion, we should not neglect simple and affordable technologies that do not require significant material costs and which in previous years had a positive effect from their application in practice. One of these methods can be considered an express method of quantitative self-assessment of health, used in the field of pedagogical practice (Khoroshukha, 2018; Khoroshukha et al., 2019). A description of express method of assessment of integral health proposed by us is given in the section «Materials and methods».

Of particular interest, in our opinion, may be scientific research aimed at studying the state of health of modern student youth on the basis of integral indicators. According to statistical observations, over the past 20 years in many countries there has been a gradual increase in the number of various deviations in the state of physical, mental and spiritual health among typical representatives of modern youth. In accordance with the opinion of some scientists, this trend is a consequence of the total negative impact on young people of certain specific circumstances. Such unfavorable circumstances are an incorrect understanding of the essence of a person's health as a trinity of his physical, mental and spiritual state (Korobeynikov et al., 2005; Momot et al., 2020), a decrease in the level of socio-psychological adaptation of a person to his life in society, emotional exhaustion of the body (Peretyatko et al., 2018), insufficient physical activity and somatic health, an increase in the frequency of diseases (Dorofeeva et al., 2017; Prysyzhnyuk, 2019; Oleniev, 2020), acceleration of the aging process (Khoroshukha, 2016; Prysyzhnyuk, 2021) and many others. As a result, there is a tendency towards a decrease in the number of young people who, for health reasons, are suitable for service in the ranks of the Armed Forces and other power structures of the state (Prysyzhnyuk et al., 2019). Thus, O. Dorofeeva, K. Yarimbash (2017) have researched the level of somatic health of first-year students (aged 17-19) of Dnipropetrovsk State University of Internal Affairs, O. Gonchar Dnipro National University and O. Bogomolets National Medical University (City of Kyiv).

Quantitative rapid assessment of health was performed according to the method of G. Apanasenko (1992). From the results of their research we find the following: 24.85% of students had an average level of physical health, 18.96% - above average and only 4.75% - high level, while a low and below average level of health was intrinsic to 27.06% and 24.38% of respondents respectively. D. Oleniev (2020) points out to a decrease in the level of physical fitness of first-year students of the State University of Telecommunications (City of Kyiv) at the end of the academic year according to the study of speed (60 m dash), endurance (1000 m dash) and strength (pull-up). Evidence of the acceleration of the aging rate of student youth organism can be the data of comparative analysis of Dutch and Ukrainian youth, specified by S. Prysiazhniuk, V. Krasnov (2019) in their studies. According to the authors, the differences between passport and biological age in the students of the Netherlands make up 15 years, while the said differences in their peers-students of Ukraine makes up 29 years (biological age of 17-year-old female students corresponds to 41 years of passport age, male students - 51 years). This situation prompted us to carry out some research work focused on the study of the somatic and mental health of students who study in Kyiv higher educational institutions.

#### **Materials and methods.**

This study involved 17-21 years old non-athletes students (both male and female) of Kyiv Universities (experimental group, n = 626), included the students of the Faculty of Social Technologies of the Open International University of Human Development "Ukraine" (n = 163), students of the Faculty of Physical

Education and Sports of the National Pedagogical Dragomanov University (n = 235) and students of the Faculty of Health, Physical Education and Sports of Borys Grinchenko Kyiv University (n = 228).

The control group consisted of students-athletes (boxers, wrestlers, cyclists and skiers) of Brovary Higher School of Physical Education, Kyiv region (n = 75). A long-term study of the health status of these categories of students was carried out during the following periods: 1) among the students of the Open International University of Human Development (University "Ukraine") and students of Higher School of Physical Education – from 2003 to 2007, 2) among the students of the National Pedagogical Dragomanov University from 2009 to 2015, 3) among the students of Borys Grinchenko Kyiv University, respectively, from 2018 to 2021. During the study, all the participants of the survey were healthy.

***Description of the express method of integrated health assessment.***

This method, proposed by us earlier (Khoroshukha et al., 2019), is based on the principle of understanding the integrity of the "Man - Health - Nature" system. Taking into account the pyramidal principle of building this system (Maslow, 1964), three main levels are distinguished in it: the lower level (somatic), the middle level (psychic), and the upper level (spiritual). These levels, in turn, characterize three specific states or three types of health: 1) physical health, 2) mental health and 3) spiritual health. In accordance with this, this method is a three-stage combined test: test 1 – to determine the level of a person's somatic health; test 2 – to determine the level of mental health of a person; test 3 – to determine the level of a person's spiritual health. Below we provide the rationale for the three components of this method (Khoroshukha, 2018).

*Physiological substantiation of the test designed for self-assessment of the state of human somatic health.* The test provides for the implementation of a specific type of static physical activity (namely, the duration of keeping the legs in a 90° flexion position on horizontal bars or hanging on a gymnastic wall). The prerequisites for choosing this test were the following statements:

1. The level of human health depends not only on the level of his general endurance, but also on the degree of development of his strength qualities, as well as his strength and static endurance. A person who leads a healthy lifestyle, regularly engages in physical activity (jogging, dosed walking, swimming, skiing and cycling, gymnastic exercises), adheres to a balanced diet and constantly hardens his body, undoubtedly can perform this test. And a person who does not train his body, is often sick, is overweight and does not lead a healthy lifestyle, he will not be able to fully perform such a test. In the process of increasing physical fitness, the state of physical health improves, and the duration of this test improves.

2. Indicators of actual muscle strength, the degree of their extensibility and the level of body flexibility, which are necessary for the full performance of this static test, decrease faster in the aging process than indicators of general endurance (Trappe et al., 1993; Paffenbarger et al., 1999). Therefore, the assessment of the results of this test can characterize the degree of aging of the body.

3. The implementation of this gymnastic exercise does not cause a significant change in the functional state of the cardiovascular and respiratory systems of the human body. Therefore, unlike the well-known Cooper test, which is widely used in sports practice to assess the level of aerobic energy supply to the body, our test is not potentially dangerous for the elderly persons.

4. Training carried out in aerobic mode does not completely exclude the possibility of certain pathological conditions occurring in untrained people during the performance of speed-strength exercises (Kohl et al., 1992). This, in turn, confirms the idea of the need to use static exercises in health-improving training that stimulate the processes of anaerobic resynthesis.

5. There is a close direct relationship between the indices of aerobic and anaerobic capacities of the body in both adults and adolescents (Falk et al., 1993). Therefore, it is possible to accurately determine the level of human health based on the results of testing both aerobic and anaerobic endurance.

6. Such a test is quite natural for most people due to the fact that the nature of their daily work activity is largely associated with the performance of short-term static efforts.

7. Finally, the use of the classical express method of self-assessment of individual health and reserve capabilities of the body's bioenergetics (Apanasenko, 1992) requires the use of technical means (in particular, a wrist dynamometer, an alcohol meter, etc.). In addition, the use of this method requires a significant resource of time (determining the duration of the recovery period of the heart rate after 20 squats in 30 seconds). This determines the limitations in the application of the classical method in the course of mass research. The method proposed by us in this respect is a priority, because it is devoid of such "disadvantages".

*General instructions and notes for testing.*

Static endurance exercise is performed equally by young and adult individuals. Older people can be offered to perform it not in high, but low horizontal bars (height 20-25 cm from the ground), or on a gymnastic wall. Females can also do this exercise on a gymnastic wall. Legs should be straight, not bent. A deviation from the given pose by no more than 10 degrees is allowed. The result of testing is the time (in seconds) during which the subject holds his lower limbs at the proper angle.

*Substantiation of test-2, intended for self-assessment of the level of mental health.* In our opinion, one of the criteria for assessing a person's mental health is the ability of this person to smile in an adequate

psychological environment. The overwhelming majority of people who enjoy doing their usual things at work, at home, during rest or engaging in creative activities, usually smile.

As you know, people suffering from this or that disease rarely smile. They either “close off” psychologically from other people or, conversely, seek to be given excessive attention (“coddled” with them as with small children). On the face of such people, you can often see an expression of a state of anger, resentment, groundless anxiety, fear and other negative emotions. The absence of a smile for a long time (provided that its presence was previously characteristic of a given person) is one of the first diagnostic signs of a violation of the normal mental state of a person. It may indicate the presence of a certain neurotic disorder, on the basis of which psychogenic diseases can arise.

As you know, the occurrence of most of the human somatic diseases is to one degree or another associated with the influence of stress factors. The presence of chronic stress leads to a decrease in the level of activity of the immune systems of the human body, increases the risk of various diseases, can be the cause of hypertension, stroke, diabetes mellitus, cancer and other types of pathology. There is an opinion that adrenal hormones, formed during stress, contribute to the acceleration of the aging process (Paffenbarger et al., 1999). In this case, a person's positive emotions help to slow down the processes of "age-related wear" of the body. Dale Carnegie used to say that a smile is something that can neither be bought nor sold, nor borrowed, nor begged, nor stolen. She creates an atmosphere of happiness in the home, creates an atmosphere of goodwill and serves as a password for friends.

*Substantiation of test-3, intended for self-assessment of a person's spiritual health.* One of the criteria for assessing the spiritual health of a person can be considered the phenomenon of "happiness". If a person believes that he is happy, he is probably an optimist, a lover of life, an altruist with a high level of "spirituality". Of course, there are people who strive to achieve a sense of personal happiness by ignoring the interests of society and the people around them. Striving to achieve a feeling of happiness, they often deviate from generally accepted moral principles in their thoughts and actions, which ultimately leads to their moral degradation. Many psychologists are convinced that those people who are characterized by duplicity, greed, hypocrisy, laziness, complacency and other negative character traits cannot be harmoniously developed, noble, generous and, of course, spiritually healthy and happy.

People have different understandings of the phenomenon of "happiness". For many people, the concept of "Happiness" is associated with health and awareness of the need for people, family and well-being (Khoroshukha, 2015). For the author of this article: «The state of happiness for a person is associated not only with the state of health, but also with the understanding that other people need him and he needs the other people» (Khoroshukha, 2015). In our opinion, the answers of politicians on the annual international forum “YES 2019” to a simple question about what makes them happy is interesting, most of them believe that family, home, health of loved ones, well-being and others make them happy. Most of these politicians are convinced that the state of human happiness is ensured by such concepts as family, home, loved ones, health and well-being. Information for thought, according to the international survey by Gallup International, Ukraine in 2021 ranks fifth from the end in the world ranking of happiness (U svitovomu reitynhu shchastia Ukraina zaimaie piate mistse z kintsia, 2021). Self-assessment of the level of health (physical, mental, spiritual) by the integral indicator was carried out in accordance with the scales developed by us (Tables 1 and 2).

Integral health self-assessment test (for men)

Table 1

Criteria	Degree	Scores
Hold time of 90 ° angle position (in seconds)	15 and more	2
	6 – 14	1
	less then 5	0
How often do you smile?	constantly, or often	2
	only when greeted	1
	never	0
Do you consider yourself a happy person?	yes	2
	no	0

Integral health self-assessment test (for women)

Table 2

Criteria	Degree	Scores
Hold time of 90 ° angle position (in seconds)	10 and more	2
	6 – 9	1
	less then 5	0
How often do you smile?	constantly, or often	2
	only when greeted	1
	never	0
Do you consider yourself a happy person?	yes	2
	no	0

*Note.* To the question: "Do you consider yourself a happy person?" there should be not three, as in the previous two tests, but only two answers: "yes" or "no". After all, there cannot be half happiness, just as there cannot be half love.

*Assessment:* if you scored 5 - 6 points - your integral health is "good", if you scored 3 - 4 points - your integral health is "satisfactory", if you scored 1 - 2 points, your integral health is "bad", if you scored 0 points, your integral health is "very bad".

## Results

Table 3 shows integral health indicators of 17 to 21 years old students (male) of Kyiv universities, who are not engaged in sports (experimental group) and their peers – students-athletes/students engaged in sports (control group). According to the results of the study, the level of integrated health indicators of the participants of the experimental group ranged from 4.6 to 4.8 points and their health was assessed as "satisfactory", while the level of integral health representatives of control group was 5.3 points, and their health, respectively, was assessed as "good". At the same time, no statistically significant differences ( $P > 0.05$ ) in the indicators of the level of integral health and its two components (somatic and mental health) were found between students of three Kyiv universities; only values of spiritual health indicators were significantly higher among the students of "Ukraine" University (group A) compared to the students of B and C groups ( $P < 0.05$  in both cases). As expected, the somatic health of the athletes/students engaged in sports (group D) was significantly higher (at  $P < 0.001$ ) than that of the non-athletes/not engaged in sports students. Whereas, in the values of mental health, no statistically significant differences were found between the experimental and control groups ( $P > 0.05$ ). As a result of the analysis of the spiritual status of the integral health of the students, the following regularities were established: 1) there are no significant differences between students-athletes/students engaged in sports and students non-athletes/students not engaged in sports (groups B and C) ( $P > 0.05$ ); 2) significantly higher values of indicators of spiritual health were observed in representatives of group A compared with students-athletes ( $P < 0.01$ ). It is noteworthy that among the students of University "Ukraine", the average values of mental and spiritual health indicators reached its maximum (2.0 points).

Table 3

Integral health indicators level of 17-21 years old students (male) of Kyiv universities who are not engaged in sports (group A - University "Ukraine"), group B - the National Pedagogical Dragomanov University, group C - Borys Grinchenko Kyiv University and their peers - students-athletes (group D),  $X \pm m$  (n = 366)

Groups	(n)	Integral health indicators			Integral health (points)
		Somatic (points)	Mental (points)	Spiritual (points)	
A [1]	87	0,6 ± 0,18	2,0 ± 0,00	2,0 ± 0,00	4,6 ± 0,20
B [2]	124	1,1 ± 0,19	1,9 ± 0,08	1,8 ± 0,09	4,8 ± 0,18
C [3]	112	1,0 ± 0,11	1,9 ± 0,06	1,8 ± 0,08	4,7 ± 0,15
D [4]	43	1,9 ± 0,07	1,9 ± 0,09	1,6 ± 0,12	5,3 ± 0,16
Difference adequacy	P1-P2	>0,05	>0,05	< 0,05	>0,05
	P1-P3	>0,05	>0,05	< 0,05	>0,05
	P2-P3	>0,05	>0,05	>0,05	>0,05
	P1-P4	< 0,001	>0,05	< 0,01	< 0,01
	P2-P4	< 0,001	>0,05	>0,05	< 0,05
	P3-P4	< 0,001	>0,05	>0,05	< 0,01

Table 4 shows integral health indicators (somatic, mental, and spiritual) among 17 - 21 years old students (female) of Kyiv universities, who are not engaged in sports (experimental group) and their peers – students-athletes/students engaged in sports (control group). Analyzing the nature of health indicators changes among female persons, we note the following: 1) similar to the integral health indicators of male students, the indicators of female students from three Kyiv universities (groups A, B and C) were assessed as "satisfactory", and between these groups do not found significant differences in the values of this indicator ( $P > 0.05$ ), 2) there are no statistically significant differences between the indicators of female students from the above groups when analyzing all three integral health components ( $P > 0.05$ ), 3) the level of integral health was the highest among female students engaged in sports (group D) compared with female students do not engaged in sports ( $P < 0.001$ ), and their health was assessed as "good", 4) female athletes (female students engaged in sports) also had significantly better (at  $P < 0.001$ ) indicators of physical health, 5) no significant differences were found in the values of mental health among female students of all four groups, 6) statistically better values of mental health were registered among female representatives of group A compared with groups B and D ( $P < 0.05$  in both cases). It is necessary to note that the average values of mental and spiritual health indicators of University "Ukraine" and Borys Grinchenko Kyiv University reached their maximum (2.0 points).

Table 4

Integral health indicators level of 17-21 years old female students of Kyiv universities who are not engaged in sports (group A - University "Ukraine», group B - the National Pedagogical Dragomanov University, group C - Borys Grinchenko Kyiv University) and their peers - student-athletes (group D),  $X \pm m$  (n = 335)

Groups	(n)	Integral health indicators			Integral health (points)
		Somatic (points)	Mental (points)	Spiritual (points)	
A [1]	76	0,5 ± 0,14	2,0 ± 0,04	2,0 ± 0,00	4,5 ± 0,16
B [2]	111	0,6 ± 0,10	1,9 ± 0,06	1,9 ± 0,04	4,4 ± 0,12
C [3]	116	0,6 ± 0,11	2,0 ± 0,02	2,0 ± 0,06	4,6 ± 0,13
D [4]	32	1,9 ± 0,04	1,9 ± 0,06	1,9 ± 0,04	5,7 ± 0,07
Difference adequacy	P1-P2	>0,05	>0,05	< 0,05	>0,05
	P1-P3	>0,05	>0,05	>0,05	>0,05
	P2-P3	>0,05	>0,05	>0,05	>0,05
	P1-P4	< 0,001	>0,05	< 0,05	< 0,001
	P2-P4	< 0,001	>0,05	>0,05	< 0,001
	P3-P4	< 0,001	>0,05	>0,05	< 0,001

## Discussion

Summarizing the data obtained during the study, we come to the conclusion that the level of integral (somatic, mental, spiritual) health among the students do not engaged in sport and students engaged in sports is characterized by significant differences in some indicators. Thus, the analysis of integral health indicators among the students do not engaged in sports of three Kyiv universities (University "Ukraine", National Pedagogical Dragomanov University, and Borys Grinchenko Kyiv University) showed that the integral health of male and female students is assessed as "satisfactory", and no statistically significant differences ( $P > 0.05$ ) were found between the students of these Universities. As for the statuses of their integral health, as evidenced by the data of our study, there were no significant differences between the values of somatic and mental health of three groups of students. With regard to the status of the integrated health, according to research, no significant differences between the values of physical and mental health indicators of the three groups of students (A, B and C) were found, while significantly better values of mental health indicators were observed in the male students of the University "Ukraine" in comparison with the students of the National Pedagogical Dragomanov University and Borys Grinchenko Kyiv University), as well as in the female of group A in comparison with representatives of group B. The highest average statistical values of mental and spiritual health indicators (2.0 points) had female students of "Ukraine" University and Borys Grinchenko Kyiv University, while among male students, only representatives of University "Ukraine", had high values of the mentioned health indicators. As expected, the indices of absolute and somatic health among students-athletes (their health was assessed as "good") were significantly higher (at  $P < 0.001$ ) than that of non-athletes of the mentioned universities in Kyiv. However, the level of spiritual health indicator among the athletes-students was significantly lower than the level of spiritual health indicator of non-athletes students (both male and female) of the University "Ukraine" ( $P < 0.05-0.01$ ). Students of "Ukraine" University (among them, about 50% were people with disabilities), to a greater extent than other respondents, turned out to be carriers of spirituality. In our opinion, this fact is explained by the fact that most of them are characterized by such signs of spirituality as belief in the greatness of the human soul and its immortality, in the God the Creator and eternal human values (honesty, decency, justice, charity, responsibility, etc.). M. Khoroshukha (formerly a sports doctor at the Brovary Higher School of Physical Education and a teacher of the three mentioned Kyiv universities) points out the importance of using the health-improving system of Porfiry Ivanov in the formation of a healthy lifestyle for schoolchildren and students in order to physically and spiritually harden a person. This reflects the altruistic understanding of the essence of human life, love for nature and people around him (Khoroshukha, 2015). In his opinion, Ivanov's system was most fully embodied among the students of the Department of Rehabilitation of University "Ukraine".

## Conclusions

1. The level of integral (somatic, mental, spiritual) health of students of different social employment (students who do not play sports and student-athletes) according to some statuses of the above health are characterized by significant differences. Thus, the mentioned health of students of the city of Kyiv (boys and girls) who do not play sports (University "Ukraine", M. P. Dragomanov National Pedagogical University, Borys Grynchenko Kyiv University) is assessed as «satisfactory», while the level of health of student-athletes (boys and girls of Brovary Higher School of Physical Culture, city of Brovary) is assessed as «good».
2. The level of somatic health remains the highest among student-athletes (boys and girls) compared to students (boys and girls) who do not play sports.
3. No statistically significant differences were found between spiritual health indicators in all groups of probands.

4. The highest level of spiritual health is registered among students (boys and girls) of the University «Ukraine», as well as among girls of the Borys Grynchenko Kyiv University.

5. The fact that students of the University «Ukraine» (among them about 50% of people with disabilities) to a greater extent than other respondents, are carriers of spirituality, in our opinion, it is explained by the fact that most of them have such signs of spirituality as faith in the greatness of the human soul and its immortality, in the Creator God and eternal human values (honesty, decency, justice, charity, responsibility, etc.).

6. Athlete students have a high level of integral health achieved mainly through an increase in the average indicators of somatic health and to a lesser extent - of the spiritual one, while the students who do not play sports, on the contrary, achieve their satisfactory level of health due to high indicators of spiritual health and to a lesser extent - of the somatic one.

**Conflicts of interest.** The authors report no conflicts of interest.

**Disclosure statement.** The authors of this article have no financial interests and financial benefits from their conducted research.

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