CODEN [USA]: IAJPBB ISSN: 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

http://doi.org/10.5281/zenodo.1304336

Available online at: http://www.iajps.com Research Article

THE SYSTEM OF MEDICAL AND PEDAGOGICAL SUPPORT OF STUDENTS' HEALTH IN THE EDUCATIONAL PROCESS OF THE UNIVERSITY

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Abstract

This paper reveals the system of medical and pedagogical support of students' health in the educational process of the Belgorod State National Research University. It is argued that this system includes the target, substantial, operational, and productive components. A special place is given to disclosing the content of the activities of the University Center for a person's functional state correction. The paper shows that the basis of the system is the functional interaction of specialists of various profiles: doctors, psychologists, physiologists, and teachers.

Keywords: *medical and pedagogical support, system, health, students, educational process, university.*

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Please cite this article in press Irina V. Irkhina et al., ***The System of Medical and Pedagogical Support of Students' Health in the Educational Process of the University,*** *Indo Am. J. P. Sci, 2018; 05(06).*

INTRODUCTION:

For modern Russia, students represent one of the key intellectual and demographic potentials, but, as statistics show, the health status of young students triggers concerns. Among students, more than 5 million acute and chronic diseases are registered annually, more than 1 million of which are infectious. More than 1.5 million students suffer from mental disorders. Up to 85% of future specialists have chronic diseases. About 800 thousand of students have experienced the effects of drugs, more than 1 million - suffer from alcoholism, about 800 thousand are tobacco smokers [1]. The results of the research show that even before entering the university, the health of young people is weakened by the influence of various unfavorable factors, and 60-70% of them have chronic diseases [2].

It is known that the educational process in the university places high demands on the health of students. At the same time, during the time of studyat the university, the health of students does not improve, but in some cases worsens [3; 4]. Despite the measures having been taken in recent years in the universities (diagnostic and corrective measures, extracurricular activity aimed at formation of a culture of healthy lifestyle, the establishment of medical and psychological services and centers, etc.), the potential of the educational system of the University for medical and pedagogical provision of young people is half used. This situation causes a need for solving this social and pedagogical problem. However, studies of the system of medical and pedagogical support of students' health in the educational process of the university are still practically absent.

Problem statement

The analysis of the problem of medical and pedagogical provision of students' health in the educational process of the university made it possible to single out the contradiction between the need to integrate medical and pedagogical knowledge in solving the problem of support of students' health, accumulated by a mass of domestic and foreign theoretical and empirical experience of health-oriented activities of universities, on the one hand, and the unresolved issue in the theory and practice of higher education, on the other hand, which has led to the need to develop a set of medical and pedagogical technologies that can be used in the educational system of universities. The formulated contradiction served as a basis for determining the problem of research, consisting in justifying the structure and content of the system of medical and pedagogical support of students' health in the educational process of the university.

MATERIALS AND METHODS

The solution to this problem is provided by the use of a set of methods: the study of students' subjective opinion about their health status using a questionnaire (V.P. Babintsev, 2006); express method (G.L. Apanasenko, R.G. Naumenko, 2000); a quantitative assessment of the risk of the emergence of pathological syndromes and conditions in students was carried out using ASKORS computer program (Iu.P. Gichev, 1990); and experiments. Statistical methods of data processing and analysis were determined using the StatGraphics for Windows.

Main part

Pedagogical support of students' health in the educational process of the university is a socially organized interaction between employees of the university healthcare service (Center), teachers and students, during which the tasks of physical, mental and social development of future specialists are being addressed.

The structural model of implementing the system of medical and pedagogical support of students' health in the educational process of the university includes the presence of such structural components as:

- target - presupposes the creation of conditions for support of the students's health in the educational process of the university;
- substantive, which involves the implementation of the goals, contents, methods, forms, means and algorithms of medical and pedagogical activity for the support of the health of students;
- Operational, reflecting the algorithm for the implementation of a set of researched technologies for preserving, strengthening and shaping the health of future specialists: goal-setting, planning, organization of activities, analysis of results. The content of the operational component includes an analysis of the experience of ensuring the health of students during the educational process of the university; diagnostics of problems, condition in this area, identification of a tree of goals; choice of means; development of programs, algorithms for the solution of the problem; implementation of activities, content, methods and forms of health-oriented activities in the university; results of monitoring, reflection;
- Effective, related to the evaluation of the achieved results.

We shall consider the content-procedural aspect of the system of medical and pedagogical support of

students' health in the educational process on the basis of the Belgorod State National Research University (BSNRU). A purposeful formation of the system of medical and pedagogical support of students' health was carried out in March 2008, when the concept of development of the health-oriented educational system of the university began to be implemented (V.N. Irkhin, 2006) [5]. All students received their personal health passports and a database was created. At the initial stage of the work, 4138 students were examined, among them "low" level of health was detected in 1001 students, which amounted to 24.19% of the total number of participants in the experiment; the level of health "below the average" was determined in 1,256 people, which was 30.35%; the average level of health was 1,619, which is 39.12%, the "above the average" health level was recorded in 242 students, which is 5.84%, and finally, 20 people had a "high" level of health, which was 0.48% [6].

In the course of the target program "Development of a Health-Oriented Educational System of the BSNRU for 2013-2017", the necessary conditions were created in the university for full-fledged provision of medical and pedagogical services to university students. The clinic of the BSNRU conducts medical examinations of 1-2-year students to determine the health groups and groups of physical therapy. Organization of a health-oriented educational process, involves the use of health-saving technologies and training regimes for students, the inclusion of specialized programs for the formation of a culture of health for future professionals, their preparation for health-oriented professional activities. This direction is carried out through training and extracurricular activities.

Formation of health of future specialists is carried out mainly through medical-biological and psychological-pedagogical disciplines that allow students to master the necessary rules concerning personal hygiene, prevention of bad habits, proper nutrition, enhancement of motor activity, etc. The health problems of students are solved in two aspects: medical and pedagogical, the key element of which is physical culture and health activity.

The university classes implement the technology of preserving the mental efficiency of students with the help of kinesiological methods (diagnostic, constructive, operational, evaluation stages), as well as the technology of teaching students a culture of health, implemented at the diagnostic, value-orientation, activity-operational and effective stages [7].

The most promising direction of physical culture and health improvement is the introduction of personality-oriented innovative technologies in sports, rehabilitation, and recreation as the most effective means of physical development of student youth. In 2015-2016 academic year, compared to the previous academic year, the number of students entering the special physical education group increased by 5.6%. The creation of the "Center for a person's functional state correction" in 2016 on the basis of the BSNRU policlinic and S. Khorkina educational and sports complex for the purpose of carrying out a set of rehabilitation and corrective measures and active promotion of a healthy lifestyle became topical. The Center for Health Correction created a unified database on the basis of assessing, forecasting and correcting the state of human health, taking into account individual characteristics and opportunities. The basis for carrying out activities that support and strengthen health, correct functional changes, are individual quantitative indicators, combined in the "student's health passport".

Specialists of the Center have developed rehabilitation and corrective programs for the following profiles: treatment of the musculoskeletal system (osteochondrosis, arthrosis, arthritis), endocrine system (obesity, diabetes, thyroid pathology), cardiovascular system (hypertension, ischemic heart disease), nervous system (vegeto-vascular dystonia), gastrointestinal tract abnormalities (gastritis, peptic ulcer and duodenal ulcer, pancreatitis, hepatitis, chronic intestinal diseases). Currently, the project for the development of the Center for a person's functional state correction is being implemented on the basis of the BSNRU polyclinic (Table 1).

Table 1. **The project of development of the Center for a person's functional state correction on the basis of the BSNRU polyclinic**

Objective of the project:	Creation of the Center for a person's functional state correction for the implementation of a set of rehabilitation and corrective measures in order to improve the health of students, teachers and employees of the BSNRU.
How to achieve:	Creation of a unified database on the basis of assessment, prognosis and correction of the state of human health, taking into account individual abilities. Development by the specialists of the Center of individual programs for the rehabilitation and correction of the health of students. Carrying out rehabilitation and corrective activity on the basis of rooms and gyms of the polyclinic S. Khorkina educational and sports complex. Interaction of specialists of various profiles (doctor, psychologist, physical therapist, physiologist). Implementation of supplementary education programs: "Healthy Food and Proper Nutrition", "Theory and Methods of Athleticism", "Theory and Methods of Wellness Aerobics". Sanitary and educational activities aimed at the formation of a healthy lifestyle. Changes to the staff schedule. Introduction of the co-financing mechanism.
Project results:	Improvement of the health status of students, teachers, staff of the BSNRU as a result of a set of rehabilitation and corrective measures based on the Center for the person's functional state correction.
Requirements for the result:	Individual "Student's health passports" have been created. At least 14 healthcare programs for the rehabilitation and correction of mental and physical health of students, teachers and staff have been developed. A salt-chamber has been opened on the basis of the BSNRU polyclinic. The program of additional education has been developed: "Healthy Food and Proper Nutrition". Additional education programs were implemented: "Theory and Methods of Athleticism", "Theory and Methods of Wellness Aerobics". The system of sanitary-educational activity with participation of students, teachers of the Medical Institute has been created. A co-financing mechanism has been introduced to pay for the cost of the voucher. Two offices were added to the staff schedule: 1 doctor's office, 1 nurse's office.

The activity of the Center for the person's functional state correction is implemented on the basis of the functional interaction of specialists of various profiles: doctors, psychologists, instructors in physical culture, physiologists knowing the oats of the organization of proper nutrition, taking into account the body type and health disorders both at the stage of comprehensive diagnostics and in the process of rehabilitation and corrective measures.

We shall disclose the components of ensuring the health of students by the university health service. This interaction has the following stages:

- interaction of the health service specialist and the student with the aim of determining the student's health reserves;
- forecasting of the "route" of the student's individual health;
- awareness and acceptance of the individual concept of the young person;
- formation (selection) of the content and ways of preserving and strengthening the health of the student (individual health program);
- implementation of the substantive and operational aspects of the developed program; its control and correction;

- analysis and evaluation of the results of the student's individual health program.

Methods of interaction between the health service specialist and the student include a set of psychological, pedagogical, physiological, clinical, physical, pharmacological and other methods, forms and means of diagnosis, prognosis, correction, strengthening and formation of health of young men and girls. The result of the interaction between the health service specialist and the student is the diagnosis of health, the prevention of diseases and deviations in the development of the future specialist, the correction and rehabilitation of his/her health (if necessary), the strengthening of health and the formation of a student's health culture.

The most important form in recent years has been the involvement of students to participate in the trials of the All-Russia Physical Culture and Sports Program "Ready for Labor and Defense". In September 2014, 838 second-year students took part in the RLD tests. In 2015 - 4310 people, 4,188 of which are students, 122 - teachers and employees. 80 people reach a qualifying standard (17 of them won gold, 33 - silver, and 30 - bronze signs).In addition, the BSNRU won first place in the regional festival of student sport (September 2015) in the all-round RLD competition. In 2016, 2000 students and 700 employees took part in the competitions for a qualifying standard.

Thus, the university has built a system of consistent implementation of the set of medical and pedagogical technologies:

- technology for diagnosing the student's health in the educational process of the university (assessment of individual reserves of physical health;
- • assessment of the functional state of the autonomic nervous system; assessment of risk factors for the development of non-infectious diseases in students using standardized questionnaires, etc.);
- • technology of prevention of chronic non-infectious diseases in students;
- • technology to ensure the health of students by means of wellness aerobics (various aerobic exercises, which are "classical aerobics", "tai-bo", "dance aerobics", "aerobic exercise", "dance aerobics-2", "step aerobics") [8];
- • technology to support students' health using aqua aerobics (various aerobic exercises, which are "Aqua-dip (using aqua-belts)", "Aqua-tai (using aqua-belts and aqua-boots)", "Aqua interval (classes, alternating power and cardio blocks), "Aqua All" (power classes using aqua-belts, aqua-dumbbells, aqua-noodles), Aqua Boots (cardio classes using aqua-boots), Aqua Noodle (cardio classes using aqua-belts, aqua-dumbbells, aqua-noodles) ") [9] etc.

The introduction of the system of medical and pedagogical support of students' health in the educational process of the University resulted now in a positive trend towards an increase in the number of students of the 1st and 3rd health groups due to their transition from the 2nd and 4th groups. In fact, the first group of health in general is larger and amounts to about 24%. This difference is related to the annual admission of new students and the graduation of the graduate students. There is a positive trend towards an increase in the number of students in the 1st and 3rd groups of health due to the transition from the 2nd and 4th groups. The questionnaire revealed that if in the past three years, health of 72% of students ranked ninth in the system of life priorities, now - 89% of students consider their health to be a primary life value [10].

CONCLUSION:

1.The experience of Belgorod State National Research University shows that the implementation of the system of medical and pedagogical technologies in the educational process of the university, including targeted, substantive, operational, effective components and technologies for diagnosing health is an effective means of supporting the students' health; assessment of risk factors for non-infectious diseases in students; support of the health of students by means of recreational aerobics and water aerobics.A special place is occupied by the activities of the University Center for the person's functional state correction.

2. The introduction of the system of medical and pedagogical support of students' health in the educational process of the University resulted now in a positive trend towards an increase in the number of students of the 1st and 3rd health groups due to their transition from the 2nd and 4th groups. In the past three years, health of 72% of students ranked ninth in the system of life priorities, now - 89% of students consider their health to be a primary life value.

3. Hypothetically identified pedagogical prerequisites of effectiveness of the system under consideration were confirmed. Among such prerequisites are the target orientation of subjects of the educational process of the university to the value of health; the creation of a health-improving, physical culture and recreational environment in the university, contributing to the awakening of students' motivation

for a healthy lifestyle; consideration of individual-typological features and individual experience of the health-oriented life activity of future specialists in the academic process.

REFERENCES:

1. Irkhin, V.N., Irkhina, I.V., Nikulina, T.V., 2010. Health-oriented educational system of the university: management technology. Monograph. - Belgorod: PC “Politerra": 207.
2. Mikhailova, S.V., 2015. State policy in the field of health protection of student youth. International Journal of Applied and Fundamental Research: 9-1: 184-186; URL: http://applied-research.ru/ru/article/view?id=7467.
3. Irkhin, V.N., 2006. The concept of development of the health-saving pedagogical system of the university. Monograph. - Belgorod: 128.
4. Kovaleva R.E. Technology of training future teachers for health-oriented activities on the basis of a modular approach: author’s abstract, PhD Pedagogics. - Belgorod, 2014. - p. 197.
5. Irkhin, V.N., Irkhina, I. V., Nikulin, I.N., 2013. University Sports and Recreation Activities System as a Factor of Ensuring the Students Health. World Journal of Medical Sciences, 9 (3): 162-166.
6. Polukhin, O.N., Nikulin, I.N., Nikulina, T.V., 2016. Health-promoting policy in Belgorod State National Research University. Theory and Practice of Physical Culture, 1: 1-5.
7. Hopkins, W.G., 2008. Quantification of training in competitive sports: methods and applications. Quantifying training load: a comparison of subjective and objective methods. IJS: 16–30.
8. Brown, Stanley P.; Chitwood, Linda F.; Beason, Kim R.; McLemore, Deena R., 1997. Deep Water Running Physiologic Responses: Gender Differences at Treadmill-Matched Walking/Running Cadences. The Journal of Strength & Conditioning Research:11(2): 107–114.
9. Eckerson, J., Anderson,T. 1992. Physiological response to water aerobics. The Joumal of Sport Medicine and Physical Fitness, 32(3), 255-261.
10. Irhin, V.N., Irhina, I. V., Nikulin, I.N., 2016. Study of opinions of Teachers and students on the status and ways of improving the higher Professional physical education. The Social Sciences, 11 (10): 2456-2459.