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# Internationalization of Medical Education: Experience, Problems, Prospects



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INTERNATIONALIZATION OF MEDICAL EDUCATION:  
EXPERIENCE, PROBLEMS, PROSPECTS

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The collection presents the materials of the All-Russian Educational and Methodological Conference with International participation "Internationalization of Medical Education: Experience, Problems, Prospects", dedicated to topical issues and achievements introduced into the educational process of higher medical education when teaching foreign students. The publications reflect the work experience of colleagues of the Russian Federation, employees of BSMU, as well as colleagues from educational organizations in Kazakhstan, Uzbekistan, Kyrgyzstan, Jordan, France. The authors discussed the modern possibilities of innovative teaching methods aimed at the formation of professional competencies in accordance with the professional standards of specialists, as well as the problems and prospects of the internationalization process in the healthcare system.

The conference materials are published in the author's edition. The author's interpretation of the submitted materials may not coincide with the opinion of the organizing committee.

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## PROSPECTS OF INTERNATIONALIZATION OF MEDICAL EDUCATION IN THE BSMU OF THE MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION

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The University's development strategy is aimed at implementing state policy in the field of healthcare and medical education. Currently, the University is actively involved in the internationalization of education, which becomes the object and subject of a purposeful policy on the part of the state, focused on solving national, political, social and economic problems.

The expansion of international cooperation and internationalization of the University are among the key priorities of the Bashkir State Medical University. In particular, among the main directions of BSMU's international activities, it is necessary to highlight the export of educational services. Training of national personnel for foreign countries is an important component of cooperation in the international arena and foreign economic activity of the Russian Federation. The degree of involvement of each particular university in the process of train-

ing highly qualified foreign specialists is an important rating indicator of the level of this university in the global educational space.

In 2022, BSMU took part in the Arab Health, the largest exhibition in the Middle East and the second largest in the world in the field of medical and pharmaceutical industry. The School of Pharmacy of the Shahid Beheshti Medical University (MUSHB, Tehran, Islamic Republic of Iran) organized the V International Congress "Pharmacy Updates 2022". 23 young scientists, postgraduates, residents and students of BSMU took part in the Congress and made presentations and poster presentations, it was the most representative team among all participants. The results of their own research work in the field of pharmacy, pharmacology and dentistry were reported.

The University has a long history of working with international students. The first relatively large group of foreign students came to BSMU in October 1991. These were students from Arab countries such as Jordan, Syria, Palestine, Yemen, Israel, Morocco, a total of 38 people. Since the beginning of the 21st century, the work on the development of international relations at the University has intensified and in 2003 an international department was formed. In 2005, due to the reorganization, the Dean's office for work with foreign students was reorganized, the functions of work with students were transferred to the international department.

The university is widely known in many countries. The list of BSMU partners includes 56 leading universities, clinics, scientific and educational centers in Germany, the People's Republic of China, the USA, Norway and other countries. Teachers and students of BSMU participate in academic mobility programs, give lectures and reports at congresses, at foreign partner universities, conduct research work together with foreign colleagues. Clinical bases and departments of BSMU take part in international clinical trials of pharmaceuticals and medical devices. Scientific conferences with international participation on various topics are held annually on the basis of BSMU.

The University is actively involved in the implementation of the priority project "Export of the Russian education system". In 2022, the population of foreign students amounted to 4,311 people from 57 countries, more than 70 cooperation agreements were signed. By 2025, the number of students is planned to increase more, than 5,000. The main goal of our university is to move to a higher level of education, promote the mobility of highly qualified personnel, and increase the competitiveness of specialists. BSMU implements the state policy in the field of quality assurance of medical and pharmaceutical education through the continuity of higher education, taking into account the introduction of federal state educational standards, the functioning of the system of continuing professional education.

The issue of high-quality and effective training of medical personnel is extremely relevant. The political, economic and social changes taking place in our country in the last decade naturally stimulate the modernization of the domestic system of higher medical education, a number of steps have been taken to improve its quality, integrate Russian education into the international educational space. Vladimir Putin, during his address to the Federal Assembly of the Russian Federation, proposed to return to the traditional Russian basic training of specialists with higher education. "Fundamental science lives by its own laws, that setting and solving ambitious tasks is a powerful incentive for young people to come to science, to prove that you are the best in the world. And our scientific teams have something to be proud of," the head of state said.

The Higher Medical School should provide graduates with a system of integrated theoretical and clinical knowledge, skills and abilities; help them master the world's high medical technologies; form the ability to social adaptation of a doctor.

The University has trained more than 40 thousand doctors and 4 thousand pharmacists, whose diplomas are recognized in 120 countries around the world. Bashkir State Medical University today is a leading educational institution, the center of medical and pharmaceutical science in the Republic of Bashkortostan, the Volga Federal District and is part of the Lower Volga cluster. BSMU has human, educational, research, information and infrastructure resources and makes a significant contribution to the training of highly qualified specialists for the practical healthcare of the Republic of Bashkortostan. The University's development strategy is aimed at implementing state policy in the field of healthcare and medical education. Currently, the University is actively involved in the internationalization of education, which becomes the object and subject of a purposeful policy on the part of the state, focused on solving national, political, social and economic problems.

## COMPETENCE- BASED APPROACH IN TEACHING BIOCHEMISTRY TO FOREIGN STUDENTS

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**Abstract:** The Article deals with problems facing educators when implementing the competence-based biochemistry training, and methodical approaches to assessing the development of competences in students.

**Keywords:** *medical education, biochemistry, competence-based leaning, assessment of the development of competences.*

**Introduction.** "Medical Biochemistry in Era of Competences: is the time for the Krebs Cycle to go?" - is the title of one of the articles published by our foreign colleagues [1]. What and, most importantly, how to teach? What should be the content of educational programmes and what are the main methodological methods of teaching within the competence-based approach? The title of the article briefly and figuratively formulates the most urgent and complex tasks facing medical educators today. According to modern requirements, from the very initial stages, already when studying theoretical preclinical disciplines, the content of the educational material should be strictly utilitarian and professionally oriented. Not knowledge for the sake of knowledge, not simple memorization of cumbersome formulas, names of enzymes and the scheme of metabolic pathways, but the formation of students' ability to apply biochemical principles to solve clinical problems. This is the task of a modern biochemistry course at a medical education today. Thus, it is not the Krebs cycle as such, but its universal integrating role that determines the metabolic rates of amino acids, fats and carbohydrates, the role in the development of metabolic diseases, hypoxia, manifestations of hypovitaminosis, the contribution of gene mutations of the tricarboxylic acid cycle to tumor processes - this should be emphasized when studying this topic in the framework of competence-oriented training.

With the competence approach, the final result of the educational process is established as the sum of competences that graduates must develop during the training period. The list of competences defined by the Federal State Educational Standard is the basis for the development of educational programmes, curricula, and syllabi of disciplines, modules and practices. The competence-base medical education ensures that the graduates attain competences to discharge their professional duties as a healthcare personnel.

The implementation of the competence model needs close cooperation and communication between specialists of different profiles involved in the training of students in the frame-work of educational programmes, since the formation of competences occurs consistently during the mastering of a number of disciplines.

Being a basic subject in the medical curriculum Biochemistry contributes in the development of a number universal (UC), general professional and professional competences (GPC, PC). The list of GPC and PC, the formation of which biochemistry is aimed at, in accordance with the work programme for the Specialty 31.05.01 General medicine complied at the Department of Biochemistry of the BSMU of the Ministry of Healthcare of the Russian Federation, is given below (Table 1).

Table 1

**Competencies developed during the study of Biochemistry**

<b>Competence index number with content of competence</b>	<b>Competence achievement indicators</b>
GPC-5. Ability to evaluate morphological, functional, physio-	GPC-5.3. Be able to evaluate morphological, functional and physiological indicators of laboratory and instrumental examination of the patient

logical states and pathological processes in the human body to solve professional problems	GPC-5.4. Be able to Take into account morphological and functional features, physiological conditions and pathological processes in the human body when making a diagnosis and prescribing treatment to a patient
PC-5. Ability to collect and analyze the patient's complaints, history, the results of the examination, laboratory, instrumental, pathological-anatomical and other studies in order to recognize the state or establish the presence or absence of the disease	<p>PC-5.3. Be able to draw up a plan of laboratory and instrumental methods of examination and substantiate their need and scope taking into account medical indications and counter-indications and in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care taking into account medical care standards.</p> <p>PC-5.4. Be able to evaluate results of physical, laboratory and instrumental methods of patient examination and their validity.</p> <p>PC-5.5. Be able to interpret the results of examinations of a patient with a degree of morphological and functional, physiological and pathological processes in the body and dynamic changes in the clinical picture, assesses their prognostic significance</p> <p>PC-5.6. Be able to draw up the results of a survey, physical and laboratory-instrumental examination of the patient in accordance with the rules for issuing a medical document (medical record of the patient)</p>

For comparison, we present the competences developed by the Biochemistry curriculum in accordance with the National Medical Commission of India (2020)[2]:

Table 2

**Competences developed by Biochemistry curriculum  
(The National Medical Commission of India)**

<b>Competences</b>
Be able to interpret to laboratory results and correlate with clinical conditions. Describe clinical importance of various serum enzymes as markers of pathological conditions;
Be able to discuss the regulation, function and integration of carbohydrate, lipid and protein metabolism along with associated disorders.
• Be able to interpret results of various lab analytes associated with disorders of carbohydrate, lipid and protein metabolism.
• Be able to discuss digestion, absorption and importance of nutrients and disorders associated with nutrition like Protein Energy Malnutrition and obesity.
• Be able to describe biochemical role of vitamins and minerals in the body and explain the manifestations of their deficiency and toxicity.
• Be able to describe the processes involved in maintenance of normal pH and electrolyte balance and interpret the Arterial Blood Gas (ABG) Analysis in various disorders.
• Be able to describe processes involved in genetics.
• Be able to describe the various tumor markers and biochemical basis of cancer therapy. • Be able to perform and interpret biochemical analysis of urine
• Be able to describe processes involved in vaccine

It should be noted, on the one hand, the similarity in content, and on the other, the more detailed development of the biochemical aspects of competencies by our Indian colleagues, which reflects the important contribution of molecular methods and approaches to modern clinical medicine.

The introduction of the competence model has restructured the entire educational process. There is a need to create a system of detailed accounting and monitoring of the devel-



opment of competences during the mastering disciplines and the educational programme as a whole. The task may seem metaphysical, but it is necessary to create a continuous longitudinal system for assessing the dynamic process of competence formation. One of the possible approaches is the creation of the Competence development maps as indicators of the achievement of learning outcomes with clear measurable criteria (descriptors) [3]. An example of the development of such a map for one of the general professional competencies (GPC-5), to the formation of which in students of the Specialty 31.05.01 General medicine the discipline Biochemistry contributes, is given below (tables 3,4).

An example of the development of such a map for one of the general professional competencies (GPC-5), to the development of which in students of the Specialty 31.05.01 General medicine the discipline Biochemistry contributes, is given below (tables 3,4,5).

Table 3

GPC-5 development card (Discipline “Biochemistry”)		
Competence development card		
Specialty 31.05.01 General Medicine		
Discipline Biochemistry		
Competence index number with content of competence	Competence achievement indicators	
GPC-5. Ability to evaluate morphological, functional and physiological states and pathological processes in the human body to solve professional problems	GPC-5.3. Be able to evaluate morphological, functional and physiological indicators of laboratory and instrumental examination of the patient GPC-5.4. Be able to take into account morphological and functional features, physiological conditions and pathological processes in the human body when making a diagnosis and prescribing treatment to a patient	
Levels of competence development		
Threshold I	Basic	Advanced
The student has a general idea of the basic biochemical tests, used in clinical diagnostics, can work with the equipment used in clinical and physicochemical laboratories	The student has a knowledge of metabolism, the laws of the functioning of the body, biochemical indicators used for diagnostic purposes, and the ability to interpret their deviations make it possible to solve professional problems according to well-known algorithms, rules and techniques	The student assumes the presence of deep theoretical knowledge of metabolism and laws of the functioning of the body, biochemical indicators used for diagnostic purposes and the ability on the basis of this knowledge to solve professional tasks of increased complexity, atypical tasks, to make professional and managerial decisions in conditions of incomplete certainty, with insufficient documentary and normative methodological support

Table 4

<b>Planned learning outcomes (advanced level of development of the GPC-5, Discipline “Biochemistry”)</b>	
<b>The level of the development of the competence</b>	<b>Planned learning outcomes</b>
<b>Advanced level:</b> assumes readiness to solve prac-	<b>to have a knowledge:</b> the structure, physical, chemical properties and functions of biologically important sub-



tical tasks of increased complexity, atypical tasks, to make professional and managerial decisions in conditions of incomplete certainty, with insufficient documentary and regulatory methodological support	stances, the main metabolic pathways of metabolism and their regulation, chemical processes underlying vital activity, physical and chemical and methods of analyzing the biological environment of the body
	<b>be able to:</b> -independently work with educational and reference literature; -use measuring equipment when performing biochemical studies; -determine the indicators of components of protein, carbohydrate, lipid metabolism in blood and biochemical fluids; -determine the amount of protein fractions in the blood; -evaluate the value of various biochemical tests of blood and urine analysis in certain pathological conditions (diabetes mellitus, pathology of the liver, kidneys, heart), -determine by the content of xenobiotic metabolism products in biological fluids the transformation of this medicinal substance in the body
	<b>to have practical skills:</b> conducting laboratory biochemical studies, determining some metabolic parameters; evaluation biochemical parameters in pathological conditions.

Table 5

### Criteria for evaluating learning outcomes

Criteria for evaluating learning outcomes (descriptors)				
1	2	3	4	5
<p>The lack of knowledge of the chemical composition of living organisms, metabolism and chemical processes underlying life activity.</p> <p>The lack of ability to determine the basic biochemical parameters in the biological environment of the body</p> <p>The lack of skills of biochemical analysis and inability to interpret deviations of biochemical parameters.</p>	<p>The insufficient knowledge about the chemical composition of organisms, metabolism and chemical processes underlying vital activity.</p> <p>In most cases inability to determine the basic biochemical parameters in the biological environment of the body and interpret deviations from the norm.</p>	<p>Mistakes are allowed in determining the biological role of biologically important compounds and reproducing the main pathways of metabolism and energy.</p> <p>The ability to correctly determine only the basic biochemical parameters and knowledge about the basic biochemical constants of</p>	<p>In most cases, ability to characterize the structural features, the biological role of biogenic compounds, the main metabolic pathways and the chemical foundations of the functioning of the body.</p> <p>Only single mistakes are allowed when working with biochemical equipment when determining some biochemical tests. Difficulties in explanation the deviations of biochemical test.</p>	<p>Free and confident operations with biochemical terms and concepts, excellent skills in collecting, analyzing and synthesis of information.</p> <p>Knowledge of the basic methods of physical and chemical and biochemical analysis, skills to work with biochemical equipment to determine the basic biochemical parameters and correct interpretation of their deviations in various pathological condi-</p>

		the body, allowing errors in the interpretation of deviations Ability to solve typical tasks.		tions. Knowledge of typical mistakes and possible difficulties in solving a particular problem and ability to choose and effectively apply an adequate method for solving a specific problem.
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The main stages of assessing the development of competences are intermediate certification in disciplines and, ultimately, the Final State Certification of graduates. The state final exam determines the development of all competences provided for by the Federal State Educational Standard of the Specialty and Specialist's programme. In this regard, evaluation materials compiled specifically and purposefully to determine the level of development of a particular competence are of great importance. Professionally-oriented assessment materials, including test tasks, questions, situational tasks, scenarios, simulations are developed for each discipline, module, practice, allow you to monitor the level of competence development during the entire period of mastering the educational programme.

**Conclusions.** Methodical support for assessing the development of competences is the least developed aspect in the implementation of the competence-based education. This issue requires detailed methodological development and joint integrated work and communication of interdisciplinary councils and all specialists involved in the implementation of the educational programmes.

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### **INTERNSHIP ON OBTAINING PROFESSIONAL SKILLS AND EXPERIENCE IN PROFESSIONAL ACTIVITIES, INCLUDING SCIENTIFIC RESEARCH WORK WITH INTERNATIONAL STUDENTS OF THE DENTISTRY FACULTY AS AN INTEGRAL PART OF THE EDUCATIONAL PROCESS**

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Relevance: Industrial practice for obtaining professional skills and professional experience in a medical university plays an indispensable role in the training of future healthcare professionals [1]. Every year, students, depending on the direction of training, undergo practical training in different statuses [2].

For international students of the 3rd year of the Faculty of Dentistry, studying in English, there is a practice "Production practice for obtaining professional skills and professional

experience, including research work: "Assistant to a dental hygienist". Similarly, international students of the 5th year of the Faculty of Dentistry from among foreign citizens master the "Production practice for obtaining professional skills and professional experience, including research work: "Assistant to a pediatric dentist".

The practice is managed directly by associate professors of the Department of Pediatric Dentistry and Orthodontics with a course of IDPO [3]. On the basis of the passportization of bases, the direct supervisors of students' practice are doctors of dental offices, departments, almost all polyclinics and hospitals in the city of Ufa. Physicians - heads of practice are approved by orders of the chief physicians of polyclinics and hospitals.

The production meeting is held 3 times, at the beginning of the semester, a month before the start of the practice and immediately before the start of the practice. At the first meeting, lists of distribution of international students to clinical bases are compiled. At the final meeting, the order of the rector is read out and all the necessary documents for the internship are given to the international students. Heads of practice base institutions and medical leaders create good conditions for practice. During the production practice, students fix manual skills with the curriculum. The production practice lasts 14 working days.

In accordance with the curriculum, a list of manual skills has been developed for international students to master during practice [4]. The list of skills is set out in the "Summary Report" document, which international students fill out during practice and hand over to supervisors after work is completed. 3rd year students actively master the initial skills of examining and examining a patient in a dental chair, get acquainted with the basic principles of prevention of dental diseases. They learn to carry out professional oral hygiene, remineralizing therapy, fissure sealing.

International students of the 5th year are already working in the direction of the treatment of caries and its complications, as well as periodontal diseases. Under the guidance of curators, they conduct a complete examination of a small patient using basic and additional methods, participate in the diagnosis and development of a treatment plan and in the treatment process itself. There were no comments from the heads of practice bases and from patients.

Primary and repeated patients are admitted daily, clinical examinations are carried out, students learn to formulate a preliminary diagnosis after examinations and a final one after studying additional examination methods, draw up a treatment plan, and fill out a diary of admission. Students are given the opportunity to see 2-3 patients a day and participate in the sanitation of the oral cavity. The correctness of filling out this document is supervised by the head of the practice and the curator. The "Diary of daily admission of patients", as well as the "Summary report" are the main documents confirming the student's work in practice. These documents after the end of the practice are checked and signed by the base managers, doctors who carry out daily control and chief doctors of the clinics.

In addition to mastering practical skills, all international students, regardless of the year of study, actively participate in all preventive activities of polyclinics and hospitals: they talk with patients, give lectures, and publish sanitary bulletins in English. During the practical training, students visit schools, kindergartens, boarding schools, where they also conduct clinical examinations, give recommendations on oral health, teach rational oral hygiene, conduct health lessons using multimedia slides on relevant topics, and conduct questionnaires. In addition to sanitary and educational work, each international student during practice must conduct research work. Topics for research work are developed in accordance with the curriculum.

Working in this direction, international students learn to systematize their knowledge, correctly express and structure their thoughts. Research work is carried out as abstracts, reports, multimedia presentations. International students mount video clips, take photos for the report. Observing ethics and deontology, they learn to interact with patients and their future doctor colleagues.

After the end of the internship, the head of the university checks all the necessary documentation and evaluates the knowledge of international students gained during the intern-

ship. The assessment takes place in the form of an exam with a gradation of grades - unsatisfactory, satisfactory, good, excellent.

It should be noted that students, under the guidance of their curators, always work with patients in the rooms with genuine interest. Actively master the manual skills of the dental profile. Industrial practice for obtaining professional skills and experience of professional activity, including research work in full, allows international students to fully demonstrate the acquired professional and general cultural competencies.

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### **CONDUCTING "DENTAL HEALTH LESSONS" BY INTERNATIONAL STUDENTS IN SCHOOL EDUCATIONAL INSTITUTIONS OF THE CITY OF UFA**

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Industrial practice in teaching students of the Faculty of Dentistry plays an invaluable role in acquiring the necessary professional skills.

International students studying in Intermediate English in the 3rd year in the 5th semester master practical skills as part of the practice of obtaining professional skills and professional experience, including the research work "Assistant to the dentist - hygienist". The practice lasts two weeks, including duty Saturdays. The total amount of time is 108 academic hours.

In the Republic of Bashkortostan, the project "Dentists for the children of the Republic of Bashkortostan" has been working for many years, which involves strengthening medical and preventive care for the children's population of the city of Ufa and the entire republic. All BSMU students take an active part in the implementation of this project, international students studying in English are no exception [1,2].

International students during their internship at the Children's Dental Clinic No. 3 in Ufa conducted "Dental Health Lessons" in English among grades 3-7 of school educational institutions in the city of Ufa. In particular, health lessons were held by international students at the MBOU "School No. 27 with in-depth study of individual subjects", Ufa City Bashkir Gymnasium No. 20 named after Fatima Khamidovna Mustafina, MAOU Lyceum No. 1.

In total, more than 150 children aged 9 to 14 were covered. "Dental health lessons" were held in bilingual classes in English.

Health lessons were previously developed by international students in practical classes under the guidance of their teachers in the cycles of "Preventive Dentistry" [3]. At the beginning of each "Dental Health Lesson", an initial survey was conducted. Questionnaires in English were also compiled during practical classes. International students of the 3rd year with great interest themselves came up with questions for the questionnaires. The questionnaires contained questions by which it was possible to identify the initial level of hygienic knowledge in the children surveyed.

The questionnaire contained questions about the frequency of brushing teeth, individual oral hygiene of the child, rational nutrition, oral hygiene products, the use of dental floss, mouthwash, chewing gum. Questionnaires on the content of the questions were designed for two age groups. The first group is students of grades 3-4, the second group is students of grades 5-7. Most of the students participating in health lessons are fluent in English.

After the initial survey, direct work was carried out with schoolchildren.

"Dental Health Lessons" were conducted using multimedia materials, models and visual aids. The demonstration material was selected taking into account the age of the children. For children of primary school age, the material is presented in the form of game classes, quizzes, puzzles; children of middle and senior school age are held in the form of lectures and conversations. Methodological recommendations in English on oral hygiene, developed by the staff of the department, were also used.

Adolescents were trained in basic oral hygiene skills, talked about basic and additional hygiene products, explained the need to use the above tools.

They also covered the issues of proper and healthy nutrition, talked about the dangers of sweet food for dental health. Questions of rational use of chewing gums and so on were considered.

Future doctors - dentists from Egypt, Iran, Saudi Arabia, Yemen taught children and adolescents the basic hygiene skills for oral care, taught to use additional hygiene products. Multimedia materials were also compiled by international students in English using well-known cartoon characters.

After conducting a conversation and learning games with children, international students of the 3rd year conducted a secondary survey. Secondary questioning is carried out to consolidate the material received by the children.

As a result of the "Dental Health Lessons" conducted in English, it was noted that the children showed great interest in the proposed material, asked a large number of questions and actively participated in the development of manual skills. As a result of the initial survey by 3rd year students, it was revealed that the students surveyed have a fairly high level of hygienic knowledge, however, the level of existing manual skills in children regarding oral hygiene left much to be desired. At the health lesson, the children were shown the basic rules for brushing teeth on models. Schoolchildren accepted the information provided with pleasure and learned the rules of oral hygiene with great enthusiasm. After the health lesson, international students found out the degree of assimilation of the material by repeated questioning. The level of perception of the proposed material was quite high.

Schoolchildren got a great opportunity not only to learn a lot about dental hygiene, but also to communicate with native English speakers.

International students of the 3rd year of the Faculty of Dentistry prepared with genuine interest and enthusiasm, and then carried out preventive work with children. After the internship, international students shared their impressions and said that they would look forward to the next opportunity for testing not their professional skills, as well as the possibility of immersion and integration into the professional environment.

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## METHODICS OF TEACHING LATIN LANGUAGE AT MEDICAL UNIVERSITY FOR FOREIGN STUDENTS ON THE BASIS OF MODERN REMOTE PLATFORMS AND IMPLEMENTS

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**Annotation:** The article discusses the features of teaching Latin language to foreign students; analyzes various methods and approaches in teaching at a medical university.

**Key words:** internationalization, professional language, methodology, medical terminology.

The university at the modern stage of the educational system is constantly expanding its prospects, thereby opening up new opportunities at the international level. Students from many countries accept Russian education, take part in academic mobility, study best practices and actively exchange them. Latin language is one of the fundamental disciplines in medical education worldwide. Since the Latin language is included in the curriculum of the first year, the teaching of this subject to the students of foreign citizens in the intermediary language (English) is not excluded. With the help of studying Latin language, the professional language of a modern doctor is formed.

Latin language, in spite of the fact that it is a dead language, is a general educational discipline. Not only medical students, but also linguists and lawyers study it [7]. It is not a secret that studying of Latin language at the medical universities is a very long and deeply rooted tradition. However, according to opinion of Borovskiy Ya, M., there are two different aspects of this discipline: Latin language itself and "Latin and the basics of medical terminology". Both these aspects of the subject should be distinguished. On the one hand, studying Latin language implies acquaintance with the language, its grammatical system [2; 3; 4]. On the other hand, at medical universities it also is a kind of major subject which is connected to another fundamental disciplines such as anatomy, pharmacology etc [1; 5; 8].

To implement the educational process in Latin for foreign students, the teachers of the department prepared a work program, assessment materials, an educational and methodological complex for practical classes and independent work, visual materials in the form of presentations and test tasks in all sections of grammar and vocabulary. Currently, the development of new test tasks on many other platforms and teaching aids continues, and the faculty regularly undergoes advanced training in their specialty.

Starting from 2020, remote teaching opportunities have been discovered, especially on the Microsoft Teams platform, which has made it possible to introduce new teaching methods and optimize teacher tasks.

To improve the perception of theoretical and practical material by the students, the visibility of the educational process is very important. Demonstration of anatomical formations in multimedia presentations helps to better understand and remember the lexical meaning of a particular anatomical term. For each lesson, a separate colorful lexical minimum has been prepared in a presentation format. Each concept is accompanied not only by a translation, but also by an image so that students can apply the studied terminology in anatomy classes (pic. 1)



**Fig. 1.**

The study of Latin language lasts two semesters, during which students need to complete 4 boundary tests (two for each semester). At the beginning of each lesson, an online test task is conducted for knowledge of the lexical minimum of the previous lesson. Test tasks were formed by teachers of the Department of Foreign Languages with a Latin language course, based on a textbook for foreign students [6] with the help of the site <https://www.testwizard.ru/>, which allows you to create a task with answer options. At the end of the task, the result and the mark are shown. All test tasks is time limited: one minute per one question. A test task can contain from 12 to 30 questions. All questions have three or four possible answers, which a student should choose. Only one answer can be correct. (Pic 2.). The test is successfully passed if the percentage of correct answers is at least 72%.

3rd declension  
Вопрос 2 из 12:

Vas, vasis n

- ☐ Vessel
- ☐ Tooth
- ☐ Tendon
- ☐ Blood

Следующий вопрос

**Fig. 2**



In conclusion, we would like to note that the teaching foreign students in English is an important and perspective direction in the development of the international educational activities of the university. The fruitful studying is a quintessence of several factors such as creating new methodological materials, educational literature in English, highly qualifies teachers. The necessary conditions for organizing the educational process are the mandatory control of knowledge using testing tasks and a survey of lexical units, as well as the use of a point-rating system. The fact that students have a deep knowledge and practical training in Latin is an excellent help and basis for studying anatomy and clinical disciplines in senior courses.

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### **INNOVATIONS IN THE ORGANIZATION OF THE EDUCATIONAL PROCESS FOR FOREIGN STUDENTS AT THE FACULTY THERAPY DEPARTMENT**

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**Annotation.** The article describes the features of teaching faculty therapy for foreign students.

**Keywords:** higher medical education, foreign students, teaching faculty therapy, teaching in English.

**Introduction.** The number of foreign students is one of the universities effectiveness's indicators. The priority in the foreign students training is the formation of high professional competencies of graduates, readiness to work in practical healthcare, the availability of skills corresponding to the modern international professional standard.

**Objective:** to summarize the experience of teaching faculty therapy to foreign students and the formation of professional competencies to ensure the quality of competent specialists training who are oriented in a variety of complex clinical situations that meet international requirements.

**Tasks:** training of qualified specialists for practical activities according to the international professional standard.

**Material and methods of research.** In the course of the work, the analysis of the literary sources content on the problem of teaching in English in a medical educational institution, the organization of training at the Department of faculty therapy for foreign students were used.

**The results of the study and their discussion.** In previous years, teaching to foreign students was conducted in mixed groups together with Russian students, that is, they integrated into our student environment. Since September 2019, the department began to conduct

group training of the 4th year Faculty of Medicine's foreign students in English. The composition of foreign students: students from India - 80%, from Africa – 15%, from other countries - 5%. Lectures are given in English, and practical classes should be conducted in Russian. Not all foreign students reach the level of fluency in the Russian language by the 4th year and have experience in using the Russian language. There is also a problem of providing foreign students with professionally-oriented textbooks and teaching aids. Since 2021, there has been a rejuvenation of the department's personnel.

The effectiveness of training requires employees to improve teaching methods, English language proficiency and intercultural competence, and from students - great diligence and organization.

The department has created an educational and methodological complex consisting of a set of educational and methodological materials in English, which is used by foreign students in the learning process. The lecture course is developed in a digital format, contains information that corresponds to scientific ideas and clinical approaches in the global medical community, is accompanied by visual materials and interactive contact with the audience. Since 2022, the number of lecture hours has increased.

We have developed manuals containing an overview of educational material by discipline sections, methodological guidelines for self-study, albums for mastering instrumental research methods. Employees apply new forms of classes using modern remote means of communication, the optimal form of information presentation.

The authoritative opinion of the teacher is indispensable in teaching. Interaction with a group of foreign students is based on respect for people of another culture, tolerance, goodwill and emotional intelligence. In practical classes, parallels of similarities and differences of terms, features of phrases are constantly carried out.

To increase students' practical readiness for independent work, expand cognitive interests, we use reports with preliminary annotation of articles and information presentation capabilities that develop the ability to search, process and summarize information.

The clinical base of the department (GCH No 5) provides opportunities for practical training, the medical, educational and scientific process are closely interrelated. Curation of thematic patients, demonstration of practical skills at the patient's bedside is the basis for preparing future specialists for independent medical activity. During classes, our teachers encourage foreign students to have more verbal contact, help to speak professionally with patients, including accompanied by a two-way translation, fill out medical records. Teachers sought to organize consultative work with patients who speak English, and this was accompanied by the approval and interest of both students and patients. The created materials were used in the work – cards with dialogues "Questions for patients with respiratory diseases", "Questions for patients with cardiovascular diseases", "Questions for patients with diseases of the gastrointestinal tract", "Questions for patients with diseases of the urinary tract". Individual and joint projects on the search, review and analysis of information and the creation of multimedia presentations develop creativity and increase the development of theoretical material.

It is possible to learn the modern principle of personalized patient management, empathy and patience, the choice of treatment and rehabilitation methods, the ability to involve the patient in the treatment process only with direct verbal contact. Also, the students observed the work of the doctor on general rounds, during instrumental examinations, established interpersonal contacts with the clinic staff. Compliance with ethical and deontological norms when interacting with colleagues is also a necessary component of a doctor's successful work. Foreign students improved their communicative and socio-cultural skills, speech abilities, and linguistic knowledge. The ability to correctly formalize thoughts and results of work with patients in writing in the language being studied, logical analysis of the clinical situation forms the thinking of the future doctor and improves language skills.

In case of difficulties in selecting patients, we demonstrate video recordings of objective examination methods, techniques and results of instrumental research methods, results of

self-monitoring of patients. In distance learning, we used simulation of clinical situations in the form of business games, as close as possible to real ones. A model of the problem situation was set according to the type of consultation, students developed questionnaires for interviewing patients, plans for necessary laboratory and instrumental studies to help clarify the diagnosis. Then followed the stage of choosing the optimal therapy for this patient, the choice of drugs. The teachers analyzed each stage of the activity. The business game stimulates creative thinking, teaches teamwork and perception and analysis of various opinions. In the classes for independent work, they gave tasks for preparing conversations with patients, speeches on a medical topic, a review of articles from medical journals, monographs and offered short videos explaining part of the material in Russian and English – "Rules for the use of inhaled glucocorticosteroids", "ECG reading", new data on drugs, speeches from congresses.

The teacher needs to take into account the stereotypes of communication of foreign students – an address based on the Indian tradition, for example, "Mam" and behavior stereotypes (adaptation by the start time of classes) and create a favorable atmosphere in the classroom.

The system of evaluation of the educational program's development is an important element of the educational activities control. The database of control and measuring materials developed by us in English is suitable for evaluation at various levels - initial, current, final. The test tasks are designed for self-control and self-preparation of students and provide the following positive opportunities - the choice of a convenient time and place for testing, the possibility of repeated independent testing, the dynamics of academic performance. On the test control, 90% or more correct answers, which corresponds to the "excellent" rating, are received by 43-57% of students, 80-90% ("good") – 40-52% of students, 70-80% ("satisfactory") – 4-5% of students, less than 70% ("unsatisfactory", followed by retake) – 1% of students. The control and training test base is dynamic - it is constantly updated due to the emergence of new methods of treatment, medical equipment and changing approaches to the organization of medical care. The dynamism of the tests also encourages students to work regularly and rehearsal testing.

Practical skills are significant in the final rating – examination of the patient with an assessment of the results of the study, protection of the medical history. The formation of clinical competencies is assessed using a specially developed practical skill assessment scale and an assessment scale for writing a medical history. The interview at the exam is the next stage of certification. After the exam is completed, the assessment sheets are processed. The points received are transformed into the usual marks based on a five-point rating scale. The point-rating system allows you to develop the most important skills of self-discipline and responsibility. The quality of teaching is analyzed, the moments of improving the teaching methodology are determined.

Work has begun on the scientific activities of foreign students - the study of circulatory diseases treatment and prevention under the teachers guidance. Based on the results of the work carried out, reports are prepared at intra-university conferences under the teachers guidance, abstracts are written in collections of BSMU.

In the organization of industrial practice, the management of the final works writing, there is an accumulation of interaction experience.

We orient foreign students in the flow of educational information using information retrieval and information reference systems and motivate them to constantly replenish their knowledge taking into account individual educational trajectories, improve competence in diagnosis and treatment.

Communicative competencies, interest in scientific data, motivation to acquire new knowledge are also necessary for a progressive specialist. The criteria for choosing a specialization for foreign students are the level of knowledge, compliance with the existing requirements of the labor market, orientation to demand in the future, social opportunities.

To guarantee an education that meets international quality standards, teachers constantly undergo retraining in their specialty, improve their English language knowledges at BSMU Foreign Languages Department, linguistic courses.

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### **ON SPECIFICS OF FILLING OUT DOCUMENTS ON HIGHER EDUCATION AND QUALIFICATIONS FOR FOREIGN CITIZENS**

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**Abstract:** The article discusses a number of features for filling out documents on higher education and qualifications for foreign citizens. It gives proposals to improve the regulatory and legal regulation of the procedure for issuing diplomas in order to facilitate the improvement of documents on higher education of foreign citizens.

**Keywords:** higher education, diploma, diploma supplement.

**Introduction.** The development of the main educational program which has state accreditation of educational activities, is completed by the state final certification of the student. According to the results of successful completion of the state final certification, the graduate is issued a document on higher education and qualifications by an educational body. Samples of bachelor's, specialist's, master's, postgraduate diplomas and samples of appendices to them were approved by Order No. 645 of the Ministry of Science and Higher Education of the Russian Federation dated July 22, 2021. Residency programs are also relevant for medical universities. Persons who have completed accredited basic professional educational programs of residency are awarded a diploma of completion of residency. The diploma sample of completed residency was approved by the order of the Ministry of Health of the Russian Federation No. 634n dated September 6, 2013.

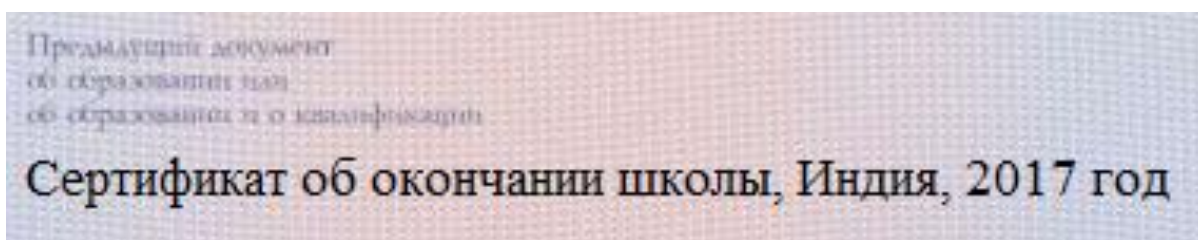
Filling out documents on higher education and qualifications for foreign citizens has a number of features, which will be discussed in this article.

**Results.** Requirements for filling in and accounting of documents on higher education and qualifications, appendices to them, samples of which are approved by Order No. 645 of the Ministry of Science and Higher Education of the Russian Federation dated July 22, 2021, are given in the Procedure of filling in, accounting and issuing documents on higher education and qualifications, appendices to them and their duplicates, approved by the order of the Ministry of Science and Higher Education of the Russian Federation No. 670 dated July 27, 2021 (hereinafter referred to as the Procedure).

In accordance with subparagraph 1 of paragraph 7 of the Procedure, the surname, first name and patronymic (if any) of a foreign citizen are indicated according to his internal (civil) or foreign (for traveling abroad) passport (at the request of the graduate) in Russian transcription. The Russian-language transcription and the type of passport, according to which the surname, first name and patronymic (if any) are indicated, must be agreed with the graduate in writing. It should be noted here that the previous Procedure, approved by Order No. 112 of the Ministry of Education and Science of the Russian Federation dated February 13, 2014,

used only the concept of a national passport. Thus, for the first time since 2023, a graduate who is a foreign citizen, in addition to agreeing on the Russian-language transcription of his name, must also agree on the type of passport, according to which the surname, first name and patronymic (if any) of the graduate are indicated. It is noteworthy that the current Procedure has no indication of storing a document on approval in the graduate's personal file. We consider this circumstance to be an omission of the regulator.

The second feature is the filling of the field “The previous document on education or on education and qualifications” in the form of the diploma supplement. If the previous document on education or on education and qualifications was obtained abroad, its name in translation into Russian and the name of the country in which this document was issued (the name of the document, the country, a four-digit number in digits, the word "year") are to be indicated. An example of filling in this field is shown in Fig. 1. Comparing with the previous Procedure, it should be noted that there was no indication of the year of issue of the document on education.



**Fig. 1.** Example of filling in the field “Previous document on education or on education and qualifications”

Let us separately consider the issue of filling out a diploma of completed residency in this aspect. The requirements for completing and registering residency diplomas are given in the Procedure of completing, registering and issuing a residency diploma and its duplicates (see Appendix No. 3 to the Order of the Ministry of Health of the Russian Federation No. 634n dated September 6, 2013).

According to paragraph 8 of the Procedure for filling in, recording and issuing a diploma of completed residency and its duplicates, the surname, first name and patronymic (the latter, if any) of a foreign citizen are indicated according to the national passport in Russian transcription. The transcription must be agreed with the graduate in writing. If the previous document on the level of education was received outside the Russian Federation, its name in translation into Russian and the name of the country in which this document was issued are to be indicated. Thus, the Procedure for filling in, recording and issuing a residency diploma and its duplicates in the above aspects is similar to the previous Procedure for filling in, recording and issuing documents on higher education and qualifications, appendices to them and their duplicates.

**Conclusions and future prospects.** The issue of translation of a document on higher education and qualifications is relevant for foreign graduates. It should be noted that paragraph 3 of the Procedure provides for the possibility of issuing a diploma in a foreign language in the manner prescribed by the body. In turn, the Procedure for filling out, recording and issuing a diploma of completed residency and its duplicates does not provide such an opportunity. In general, this possibility is established by Part 2 of Article 60 of Federal Law No. 273-FZ dated December 29, 2012 “On Education in the Russian Federation”: “Documents on education and (or) qualifications may also be issued in a foreign language in accordance with the procedure established by institutions engaged in educational activities.” Here, in our opinion, there is a significant limitation, namely, how it is possible to provide information (on a state-issued form with sections and entries in Russian) for example, in English.

In this regard, it is appropriate to refer to the norm enshrined in paragraph 3 of Article 4 of Federal Law No. 127-FZ dated August 23, 1996 “On science and state scientific and technical policy”, namely, the Candidate of Sciences diploma, the Doctor of Sciences diploma

can be translated into a foreign language and issued in accordance with the procedure established by a scientific institution or an educational institution of higher education.

Based on the above, we consider it appropriate to introduce a similar rule in the Federal Law "On Education in the Russian Federation". The previously cited fragment of Part 2 of Article 60 of the Federal Law "On Education in the Russian Federation" is proposed to be stated in the following wording: "Documents on education and (or) qualifications can be translated into a foreign language and issued in accordance with the procedure established by institutions engaged in educational activities." We believe that the service of translation and registration of a diploma in a foreign language can be at no charge, since this procedure will be an additional burden for educational institutions.

Of course, the most promising option would be the approval by the Ministry of Science and Higher Education of the Russian Federation of documents samples on higher education and qualifications and appendices to them, for example, in English or a version of the diploma form with parallel information in Russian and English. That is, on one page of the diploma form, all information is given in Russian, on the other page - in English.

We consider it necessary to draw the attention of the regulator to the following. When mentioning the patronymic of the graduate, the Procedure has a note in parentheses "if any". In relation to foreign citizens, we have met cases when a graduate does not have a surname. This circumstance is important when it comes to entering information into the federal information system "Federal Register of information on education documents and (or) qualifications, training documents". In the instructions for filling out the template "Higher Education" [1], it is noted that if the graduate does not have a patronymic, then the word "no" is given. We believe that a similar note should be given for the field "Recipient's surname".

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## **THE PROBLEM OF STIMULATION OF SCIENTIFIC INTEREST OF INTERNATIONAL MEDICAL STUDENTS**

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The profession of a doctor is multifaceted and deep, therefore, from the moment a student enters the community of doctors, it is important to interest him, stimulate him to learn and expand his horizons. It is not enough to learn one area to be a good doctor. It is not enough to know only what is written in the textbook. Our profession involves constant self-improvement, and deep knowledge can be obtained by doing science [1, 2, 3, 4].

For international students, this is a new activity that is difficult for them at first glance. That is why it is very important to consider this activity not as a problem, but as an interesting change in the educational direction.

One of the main ways to increase motivation to study is the process of involving students in research work. At first glance, it is difficult and incomprehensible, therefore it scares and repels foreign students. Our job is to stimulate the cognitive instinct, to show that doing science is interesting [5, 6, 7].

At first glance, it is difficult and incomprehensible, therefore it scares and repels foreign students. The involvement of the student in scientific activity can be facilitated by explaining that the work should be divided into several stages:

- Choosing a topic that is relevant and interesting to the student.
- Setting the goal and objectives of the study
- Definition of the object and subject of research

- Definition and refutation of the hypothesis
- Definition of literary sources
- Determining the stages of the study
- Statement of work

Selecting a topic. This should be a topic that is understandable and accessible to a person who has just started his path in medicine. In addition, the topic should be relevant and contain a problem that needs to be solved in the course of scientific activity. Research problems are precisely the unknown that needs to be proven or disproved. A problem is a golden grain in the bag of knowledge about the world, and the ability to find it determines the talent of the researcher.

After choosing a topic, you need to set the goal of the study. The goal should be global and cover the entire research problem. This is the result to be reached in the end. The goal should be unambiguous and clear, and should not contain points.

But the sequence of actions that need to be done in order to reach the goal is the research task. They should not be many or few on average 4-6. Let's imagine the goal as an object to which you need to come. Thus, objectives are steps towards a goal; they cannot be developed before the goal is set.

Definition (we talk about the object and the subject of the research). The object of study is part of the purpose of the study. And the subject of research is a part of the object, something unexplored, which the researcher will find out. Thus, the subject is the core of the study. The object of study is phenomena, and in our case, diseases, pathological processes or physiological states. The subject of research is usually laid down in the topic of research, touched upon in the problem and formed in the goal.

Definition and refutation of the hypothesis. A hypothesis cannot be regarded as a kind of dream, it is an opinion about the actual state of things, worked out under the strict control of the mind. I.Kant [1]

Wikipedia defines a hypothesis as - an assumption or conjecture; a statement that requires proof, in contrast to axioms, postulates that do not require proof. Having a subject of study, the student puts forward a hypothesis that needs to be proved or disproved, thereby achieving the goal of the study.

The outcome of the study - the achievement of the goal - depends on how the hypothesis is constructed. Therefore, when forming a hypothesis, it is necessary to adhere to several rules:

- Unspecified concepts should not appear in the hypothesis.
- The hypothesis must be provable, which means it can be tested by another researcher.
- A hypothesis cannot contradict the laws of natural science and must be subject to facts.

Efforts spent on developing even unconfirmed hypotheses are not in vain, because significantly bring the researcher closer to the truth, writes N.L. Goloviznina [3].

Definition of research stages. The stages of the study are the constituent parts of the study. These are the necessary actions that need to be performed in order to complete the research objectives and achieve the goal.

Usually the first stage of the research is the study of the literature on a given problem. Thus, the student studies what has already been done to solve the problem by other authors, how contradictory their conclusions are with the researcher's hypothesis and therefore require clarification.

The second stage is the collection of data, their systematization, comparison with the data of other authors, analysis of their research results and evaluation of the collected material.

The third stage is the stage of results. At this stage, after analyzing their data, the student draws conclusions.

The conclusions should be the logical finishing of the tasks set, and, accordingly, coincide with them in number.



Statement of work. It is necessary to explain to the student that the text of the research work should be understandable not only to him, and he writes it not for himself or his supervisor, but for all persons interested in the topic. The text should be logically complete and clearly show the depth of study of the studied material.

The design of the work is unified, so it does not cause difficulties.

Thus, the research work must demonstrate a sufficient amount of theoretical knowledge on a particular topic, the ability to work with scientific, educational and reference literature, the student's possession of research skills, the ability to generalize and systematize material on the chosen topic, the ability to formulate the scientific apparatus of work, the ability to logically and competently present the material.

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### **PROBLEMS OF TEACHING THE DISCIPLINE OF CHOICE "MODERN METHODS OF TEETH WHITENING" TO INTERNATIONAL MEDICAL STUDENTS**

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One of the important aspects of improving the quality of education and training of dentists is the phenomenon of using innovative technologies in the learning process.

Innovation (eng. Innovation - innovation) involves the introduction of new forms, methods and skills in the field of education and science. The main goal of innovative education technologies is the phenomenon of preparing a specialist for life in an ever-changing world. The use of innovative teaching methods makes it possible to make students open to innovations, forms the experience of creative innovative activity of future specialists. The motivation of students to master new knowledge increases significantly when they understand

the value, necessity and significance of the problem under study for future practical activities [1].

It is important to present modern technologies in disciplines to international students. To delve into the technologies of the international community of doctors. Stay up to date with current trends.

In modern society, in recent years, the aesthetic requirements for dental treatment by patients have increased significantly [2]. Patients are interested not only in treatment methods that ensure the elimination of defects and lost functions, but also in treatment methods that meet their aesthetic requirements. Students of the Faculty of Dentistry must constantly study and master modern methods of dental treatment, be ready to use modern achievements in dental science and the development of new technologies. The arsenal of methods for treating diseases of the oral cavity has been sufficiently replenished with canned methods of aesthetic dental treatment: tooth restoration, orthopedic methods of treatment using crowns and veneers. A prominent place in this series is occupied by modern technologies of teeth whitening, which allow to quickly achieve a significant improvement in dental aesthetics. In recent years, there has been an increase in the popularity of these types of treatment of dental diseases among dentists [3].

In this regard, at the Department of Pediatric Dentistry and Orthodontics with the course of IPE, an elective discipline "Modern methods of teeth whitening" was developed. The discipline provides for the study of the etiology and pathogenesis of tooth discoloration, methods for diagnosing and planning complex treatment, the mechanism of action of whitening systems, the use of energy teeth whitening in a dental clinic, the use of whitening methods at home. The cycle studies modern methods for diagnosing, preventing and treating hyperesthesia of the teeth after various whitening techniques [4].

The curriculum of the elective discipline "Modern methods of teeth whitening" includes 14 hours of lectures and 36 hours of clinical practice. The discipline is designed for 3rd year students of the Faculty of Dentistry. Multimedia presentations were prepared on all topics of the lectures. In the 2020-2021 academic year, for the first time, these lectures were delivered online.

To ensure the educational process at the Department of Pediatric Dentistry and Orthodontics with the IDPO course, a methodological manual "Modern methods of teeth whitening" was prepared, methodological recommendations for teachers and students were drawn up.

At the first lesson, an incoming control of students' knowledge will be carried out. To conduct current monitoring of students' knowledge in clinical practical classes, we have prepared tests for computer testing. Compiled clinical situational tasks on all topics of practical training, which include questions on the diagnosis, treatment planning of discoloration of teeth, substantiation of the choice of methods and means for whitening, identification of errors and possible complications in the treatment process. The educational process uses videos on modern methods of teeth whitening in the dental clinic and at home. Students work out practical skills in diagnosing diseases of teeth with discolorations, conducting home and office whitening techniques, whitening depulped teeth on phantoms during clinical practical classes.

At the end of the cycle, a seminar is held using thematic presentations prepared by students in accordance with the subject of scientific work. At the final lesson, students demonstrate manual skills on phantoms and computer testing is carried out in the computer class of the department for the purpose of intermediate control of students' knowledge.

The knowledge gained during the study of the discipline "Modern methods of teeth whitening" allows students to navigate in modern conservative methods and means of treating discolored teeth to improve aesthetics. The use of innovative technologies in the process of teaching students of the Faculty of Dentistry contributes to improving the quality of education and training of a competitive dental specialist.

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## **TEACHING TOXICOLOGICAL CHEMISTRY TO INTERNATIONAL STUDENTS: ORGANIZATION, FEATURES, OPPORTUNITIES**

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**Annotation:** Summarized the experience of teaching foreign students of toxicological chemistry. Regularities of academic performance and participation in cultural life are revealed. Ways of gradually overcoming the language barrier are shown.

**Keywords:** foreign students, pharmacy, toxicological chemistry

**Introduction.** Teaching foreign students of chemistry in general poses a number of difficult tasks for higher school teachers, the solution of which is not possible without a series of actions aimed at raising the level of knowledge to the level of Russian students. The problems of teaching are related to cultural and linguistic adaptation, the level of basic education, a large amount of information material presented at lectures and practical classes, insufficient availability of educational and methodological material.

**Literature review.** At the present stage of society's development, the educational services market has become noticeably competitive [1]. Education becomes the key to the country's economic growth and social stability [2]. In recent decades, the process of diversification has been successfully developing in the educational sector, which consists in attracting foreign students from near and far abroad to study. By 2025, the number of foreign students in Russian universities may reach almost a million [3].

**Materials and methods.** Written and oral survey of the foreign contingent of students (questionnaire). Analysis of the results of the academic performance of foreign students

**Results of the discussion.** Toxicological chemistry as an applied discipline contains, in addition to the basics of chemistry, additional special information necessary to solve problems in the field of chemical and toxicological analysis. The success of obtaining high-quality knowledge on the subject of toxicological chemistry by foreign students will depend on a series of actions aimed at mastering the subject. Currently, students from many countries of Asia and Africa are studying at the Medical University of the Republic of Bashkortostan (BSMU), receiving higher medical and pharmaceutical education. At the Pharmaceutical Faculty of BSMU, the training of foreign citizens is organized in two forms: training in international and national groups.

Having some experience in teaching such a complex discipline as toxicological chemistry, even for Russian students, it is possible to note some observations and conclusions based on the results of training of foreign students. Foreign students face a number of difficulties that may haunt them throughout their studies. These are general education, cultural, linguistic, communicative, didactic e.t.c. First, the level of school education of foreign students is different. It creates a certain barrier in the assimilation of the discipline material, especially in the study of natural sciences. Secondly, the adaptation of visiting foreigners to a new cultural and linguistic environment takes some time, which can be reduced by the effective work

of curators. Cultural adaptation, in our opinion, should be continuous throughout the entire training. Third, the role of communication between foreign and Russians students is a cornerstone in solving communication problems. Fourth, proficiency in the language in which the training is carried out largely solves the didactic problem of training foreign students and lays the foundation for quality education. And finally, the success of mastering a professional educational program by foreign students is largely determined by the acquired competencies due to the integration of knowledge, skills and the ability to apply them in practice.

In our opinion, learning any foreign language becomes more effective when student is immersed in the language environment and minimizing conversation in the listener's native language or intermediary language. In this regard, it should be noted that studying in international groups, in our opinion, contributes to increasing the level of communicative competence of foreign students.

We have many years of experience in providing homelander students with a collective task. The essence of it is to perform an expert task to identify and prove a toxic substance in a biological object during several practical classes. To solve this problem, we form mini-groups of 2-3 people. Involving foreign student in this mini-group contributes to the effective assimilation of the material by foreign students due to close interaction with Russian-speaking students as they move towards the goal of the collective task.

There is an understanding that the success of training depends on the availability of a set of methodological support for the course, including a course of lectures in digital and paper versions, the presence of a laboratory workshop; methodological guidelines for practical classes; tests for self-control, to control the initial and final level of knowledge acquisition. The course of lectures, the textbook for foreign students should be prepared in two languages – Russian and the intermediary language. Surely, book availability in a foreign language plays an important role in the development of the subject.

There are observations that strong Russian-speaking students in groups help and explain some points during the class to lagging foreign students, thereby removing to some extent didactic difficulties.

The need to create a bilingual textbook on chemical and toxicological analysis is obvious. It must be in Russian and the intermediary language. The manual should contain educational material on the basics of chemical and toxicological analysis, situational tasks with solutions and test material with answers. The language style of the manual should be maximally adapted taking into account the following: difficulties of mastering by foreign students the specific features of the subject of toxicological chemistry, the abundance of special terminology and concepts in chemical and toxicological analysis.

A thesaurus, a dictionary containing concepts, terms and definitions of the specialty of the discipline's field of knowledge, could be a good help in mastering the subject.

**Conclusion.** Our modest experience of teaching the subject of toxicological chemistry has shown that the model used for organizing educational work with foreign students can be improved and optimized to some extent, which in our opinion will contribute to the fact that students from other countries can sufficiently master the subject, acquire a level of knowledge and skills of independent work equal to the level of Russian students.

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**ORGANIZATION OF THE EDUCATIONAL PROCESS  
USING THE INTERMEDIARY LANGUAGE (ENGLISH)  
AT THE DEPARTMENT OF PATHOLOGICAL ANATOMY**

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The Bashkir State Medical University serves as a forge for the training of medical personnel providing qualified medical care to the population of the Republic of Bashkortostan and the Russian Federation. School teachers, purposeful career guidance work of BSMU play a significant role in choosing a doctor's profession. Students from Near and Far abroad (from 54 countries in total) also receive higher medical education at the university. The long-term creative activity of the teaching staff of the University has gained great authority and trust from the health care organizers of these countries. Our university provides an opportunity to study using an intermediary language (English). In the first three years, the training is organized in English with the parallel development of the Russian language by students. In the future, students master medical disciplines in Russian.

The educational process using the intermediary language (English) at the Department of Pathological Anatomy of the BSMU of the Ministry of Health of the Russian Federation takes place among students of the II-III courses in the specialties "General Medicine" and "Dentistry". The study of the discipline "Pathological anatomy" in the specialty "Dentistry", in accordance with the curriculum, is provided for two semesters, and the discipline "Pathological anatomy, clinical pathological anatomy" in the specialty "General Medicine" - for three semesters. At the same time, in the specialty "General Medicine", the study of the discipline in the third year takes place using an intermediary language (English), and in the fourth year - in Russian. This is due to the peculiarities of the educational process for foreign students at our university. The educational process includes contact (lectures, practical classes) and extracurricular, independent work. Independent work involves the study of educational topics not included in the lecture course and practical lessons.

Students study general pathological processes at the initial stage. These include – dystrophy, necrosis, circulatory disorders, inflammation, adaptation and compensation processes, neoplasia. The private course originates from the development of diseases of the blood and lymphatic system. At the same time, the educational process includes coverage of etiology, morphogenesis, pathogenesis, macro-microscopic manifestations of diseases, outcome, complications and causes of death. When studying a private course, considerable attention is paid to morphogenesis, since the latter is the basis of the pathogenesis of certain diseases. The issues of therapeutic pathomorphosis are considered in detail, which is due to diverse drug therapy in the clinic, often self-medication in conditions of broad medical information.

During the practical lesson, the teacher carries out step-by-step work with the participation of students. The control of the material development by students takes place in several stages – current, entrance and intermediate. The regulation on the ongoing monitoring of academic performance and intermediate certification of students in the BSMU of the Ministry of Health of the Russian Federation, reflected in Application No. 7 to the order of the BSMU of the Ministry of Health of the Russian Federation dated 04.12.2018 No. 209, provides for the performance of test tasks. Students perform test tasks at the beginning of a practical lesson in a computer classroom. The computer program was developed earlier. The analysis of the material is carried out in the form of a survey, interview or analysis of thematic reports. Unsatisfactory mark is associated with the student's unpreparedness for the lesson. A satisfactory mark follows if the student has a general idea of the pathological process, but cannot explain it in detail; a good one – when explaining the essence of the process, its macro-, microscopic manifestations, probable complications, but with minor inaccuracies or shortcomings. An excellent mark is given when a student has deep knowledge, the ability to describe in detail the

morphological picture, complications and outcomes of the process and to give a clinical interpretation of the case. In practical lessons, they actively use the possibilities of the department's museum with typical and rare exhibits of macro-preparations. The teacher demonstrates the characteristic changes of the organ (organs) in certain pathological processes. As a result, students visually assess the changes that have occurred, determine the clinical significance of the pathological process. After the stage of test control and analysis of the topic, students begin to study micro-preparations at the light-optical level in conditions of small and large magnifications. This is followed by a draw of the detected changes in the album with the appropriate designations. Under the quality of the sketch, they do not mean an "artistic" value, but the reflected essence of the process, how reliably it was possible to convey the characteristic microscopic signs of pathological changes. The absence of drawings and sings in the album of the studied micro-preparations, not an indication of morphological features or an explanation of changes in the organ, means that this section of the practical lesson is not developed and it is subject to working out during extracurricular time. The evaluation criteria are the student's ability to describe micro-preparations and the qualitative side of the drawings of micro-preparations with sings. Thus, for one practical lesson, the student receives 3 marks, which are entered in the journal of practical classes. They are directly related to the solution of the test task, the results of the analysis of the topic, the qualitative side of the drawing of micro-preparations.

The entrance control (control and diagnostic lesson) of mastering the material consists of test tasks, interviews, and the reception of practical skills. Students who do not have academic debt on the topics covered are allowed to take control and diagnostic classes. Knowledge of practical material is evaluated based on the results of the response to macro-preparations, micro-preparations according to a certain algorithm and solving a situational problem. The student's work with macropreparations is conditioned by the need to reproduce a holistic picture of the pathological process, which forms the basis of entrance control. Theoretical knowledge is evaluated during the interview, however, when evaluating, it is taken into account how fully the student was able to reveal the essence of the pathological process during the response to the situational task, the description of micro-, macro-preparations. The marks received by students in practical and control-diagnostic lessons are taken into account when compiling semester and yearly ratings. We have recognized the priority grades obtained during the control and diagnostic lessons (their share in the calculation of the rating is 75%). The latter is necessary to motivate the student to timely and high-quality fulfillment of the conditions of control and diagnostic lessons.

Intermediate control of the assessment of acquired knowledge, skills and competencies also takes place in stages. Initially, students are tested in a computer classroom, then choose an exam ticket, receive 2 micro-preparations and a situational task. When selecting examination micro-preparations, the following criteria are taken into account - the pathological process must have a heterogeneous etiology and localization. For example, adenocarcinoma of the colon + bronchopneumonia, lymph node in Hodgkin's disease + "nutmeg" liver. According to the same principle, for the most complete determination of the degree of mastering the discipline by students, the questions in the examination ticket are selected.

Thus, the methodology of teaching the discipline remains complex, unified, including the analysis of the topic, the development of characteristic morphological changes, the drawings and designation of microscopic signs of the pathological process in organ in certain diseases. The use of an intermediary language (English) in teaching general and private courses of pathological anatomy presupposes knowledge of the English language on the part of the teaching staff, the availability of educational and methodological materials on the subject in the intermediary language in sufficient quantity. At the department's meetings, the issues of optimizing the educational process were systematically considered, the unsatisfactory knowledge of students in control and diagnostic lessons and exams for the effectiveness of educational activity indicators is analyzed. With an integrated approach to the educational

process, the foundations of clinical thinking are laid, the professional competencies of the future specialist are consolidated, including those of students from foreign countries.

Keywords: pathological anatomy, teaching, teaching methods

## **TEACHING METHODOLOGY AT MEDICAL SCHOOL: WHY KNOWLEDGE OF IRON METABOLISM IN HEALTHY CHILDREN AND ADOLESCENTS IS IMPORTANT INTERNATIONALLY**

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**Resume.** According to the World Health Organization (WHO), iron deficiency (J) is a common condition internationally, it affects more than 3 billion people on the Earth. At medical schools we teach that it can manifest as iron deficiency anemia (IDA) in children (especially the first two years of life) and in women of reproductive age. According to S. Osendarp et al., in the world about 50% of preschool children and pregnant women have anemia. According to studies by D. Subramanian et al., 9% of children in their first two years of life have IDA. That's why teaching this subject to students and invite them to do research is important worldwide.

**Key words:** teaching, metabolism, adolescence, anemia.

**Introduction.** Iron deficiency conditions (IDC) remain one of the most urgent health problems around the world due to their widespread prevalence, especially among infants, adolescents, menstruating women, who are high-risk groups for the development of iron deficiency (ID) [2,3,7].

In young children, the development of ID is mainly associated with the alimentary factor [1,3,5], and in adolescents - with puberty spurt, poor diets, chronic diseases, menarche in girls, menstrual function disorders [2,7,8], while in young men it can develop with the rapid increase in muscle mass .

Iron deficiency occurs because of a long-term negative balance of iron, the reasons for which are either its insufficient intake into the body, or its increased consumption, sometimes because of a combination of both reasons. Iron is an essential element in all living beings on the Earth, it participates in the implementation of the basic functions of life support. These are, first of all, the production of iron-containing molecules (hemoglobin, myoglobin, etc.) and the normal functioning of iron-dependent reactions (involved in the production of interleukins, T-killers, T-suppressors, metalloenzymes, maintaining the pro-oxidant-antioxidant balance, etc.). Iron reserves are a buffer that protects the body from the development of ID in various situations.

It becomes obvious that ID has a systemic effect on the vital functions of the body, especially during critical periods of growth and mental development. In young children, it can manifest by a delay in psychomotor development (delayed speech skills, impaired movement coordination, changes in behavioral reactions, etc.), in adolescents – by impaired cognitive functions and mental abilities (poor memory, concentration of attention and motivation for learning, emotional lability, increased anxiety, etc.), in adults – as a deterioration in the quality of life (insufficient vital activity and apathy, lack of motivation to achieve goals, low self-esteem), etc. It should be noted that in many even highly developed countries, where the diet of nursing women contains enough iron, "4-6% of infants still develop ID, among adolescent girls the frequency of ID reaches 13-14%, among young men-3-4%. After treatment with iron-containing medications and replenishment of the iron depot, the impaired functions are quickly restored, but in some children the consequences of ID can persist for a long time and



even for life. WHO highlights global importance of this problem and requires universal attention" and actions aimed at combating iron deficiency [2,6,8].

At the same time, in our countries, despite the medical examination of the children's population and the widespread introduction of laboratory tests that assess the indicators of iron metabolism, many aspects of the pathogenesis, diagnosis, consequences and treatment possibilities of ID remain insufficiently studied from the standpoint of modern science and practice. The role of iron metabolism disorders in infectious and inflammatory diseases is not always clearly understood and taught to medical students. From a clinical point of view, this seriously hinders the understanding of the essence of pathophysiological processes in IDA and anemia associated with IDC, hinders the development and implementation of evidence-based laboratory markers of ID, hinders the development of modern protocols for the diagnosis, management, and prevention of IDC.

**The purpose of the study.** The purpose of this work was to establish the age-related features of iron metabolism and the state of hematopoiesis factors in normal and pathological conditions, including the antenatal period, and to improve the laboratory and clinical diagnosis of its disorders to justify effective treatment methods and develop optimal schemes for the prevention of IDC at the present stage.

**Materials and methods of research:** A large clinical material was used to study the parameters of iron metabolism in more than 105 children and adolescents from different societies and it was confirmed that in infants iron is primarily associated with the alimentary factor and the social status of the family.

**Results of the study:** In accordance with this goal, during the early human ontogenesis, the values were determined and the interaction of iron-containing and iron-regulating proteins and several other compounds reflecting iron metabolism was studied (alkaline and acidic isoforms of ferritin, iron, Tf, EPO, rTfR, vit. B12, folates, hepcidin); the levels of cytokines (TNF- $\alpha$ , IL-6) involved in the regulation of iron metabolism were measured.

The examined fetuses and newborn children, depending on the gestational age (GA), were divided into groups, in each of which the values of the studied indicators were determined: in fetuses 5-10 weeks (groups 1 and 2) - in total in all tissues, in fetuses 11-15 weeks (group 3) - separately in liver and spleen tissues, in developing fetuses 26-35 weeks (groups 4 and 5), as well as in newborn children 35-41 weeks (groups 6 and 7) - in umbilical cord blood. The regularities of the formation of iron metabolism in early human ontogenesis associated with the gestational age of the fetus are established, as evidenced by a significant correlation of GA with the level of iron ( $g=0.9398$ ,  $p<0.001$ ), alkaline phosphatase ( $g=0.9597$ ,  $p<0.0001$ ), rTfR ( $g=0.9293$ ,  $p<0.0001$ ), hepcidin ( $g=0.8183$ ,  $p<0.001$ ), EPO ( $g=0.8889$ ,  $p<0.0001$ ), FE ( $g=0.8889$ ,  $p<0.0001$ ),  $0.9297$ ,  $p<0.0001$ ).

The participation of iron - containing and iron-regulating proteins in maintaining high activity of proliferative and plastic processes is confirmed by close relationships between the content of iron and alkaline phosphatase ( $g=-0.894$ ,  $p<0.0001$ ), alkaline phosphatase and rTfR ( $1=0.8399$ ,  $p<0.0001$ ), alkaline phosphatase and EPO ( $g=0.9193$ ,  $p<0.0001$ ), iron and hepcidin ( $g=0.8897$ ,  $p<0.001$ ), PE and EPO ( $g=0.9067$ ,  $p<0.0001$ ), which makes it possible to use the indicators of alkaline phosphatase, rTfR and hepcidin as important prognostic markers of intrauterine development disorders, and EPO and EF-to assess the degree of hypoxia.

It was found that the highest pro-inflammatory pattern of cytokines (IL-6 and TNF- $\alpha$ ) can be markers only for early embryogenesis (before the formation of the placenta), the further dynamics of their content during intrauterine development reflects a clear balance of the processes of alteration and apoptosis, as indicated by a reliable correlation between TNF- $\alpha$  and alkaline phosphatase ( $g=0.9197$ ,  $p=0.00001$ ), TNF- $\alpha$  and rTfR ( $g=0.8789$ ,  $p<0.0001$ ).

**Conclusions:** It was found that even simple dietary measures (exclusion of whole milk from the diet, inclusion of products rich in iron, their separate use with products that inhibit iron absorption) can reduce the incidence of IDA in young children by 1638%, the rehabilitation period of children and adolescents with IDA - in 80.7% of cases.

Reducing the frequency of IDA in children and adolescents is possible only with the joint work and efforts of pediatricians, parents, social services workers, which will allow timely prevention of ID in high-risk groups. This is an important point for being taught to medical students internationally.

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### **ACADEMIC AND SOCIAL ADAPTATION OF FOREIGN STUDENTS IN HIGHER EDUCATION INSTITUTIONS OF THE KYRGYZ REPUBLIC**

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**Annotation.** The article discusses the results of a sociological study on the study of the adaptation of foreign students to a new educational system, a new socio-cultural environment, adaptation to new climatic conditions, to a new language of communication. The data were obtained during a prospective random non-repeated survey of respondents in the incognito variant. In total, 215 foreign students from 18 to 32 years old from the first to the fifth year, studying at the universities of the Kyrgyz Republic, took part in the study. The questionnaire included a number of open-ended questions, thanks to which the respondents could give not only direct answers to the questions, but also additional comments and express their emotional attitude.

**Key words:** foreign students, education, sociological research, adaptation.

**Introduction.** The relevance of this study is determined by the deepening of international, including educational, contacts of universities in Kyrgyzstan. Cooperation in the field of education is the most important and urgent task, as it allows preparing highly qualified specialists for many countries. In addition, the relevance of studying the adaptation of foreign students to learning is due to the need to increase the competitiveness of Kyrgyz universities

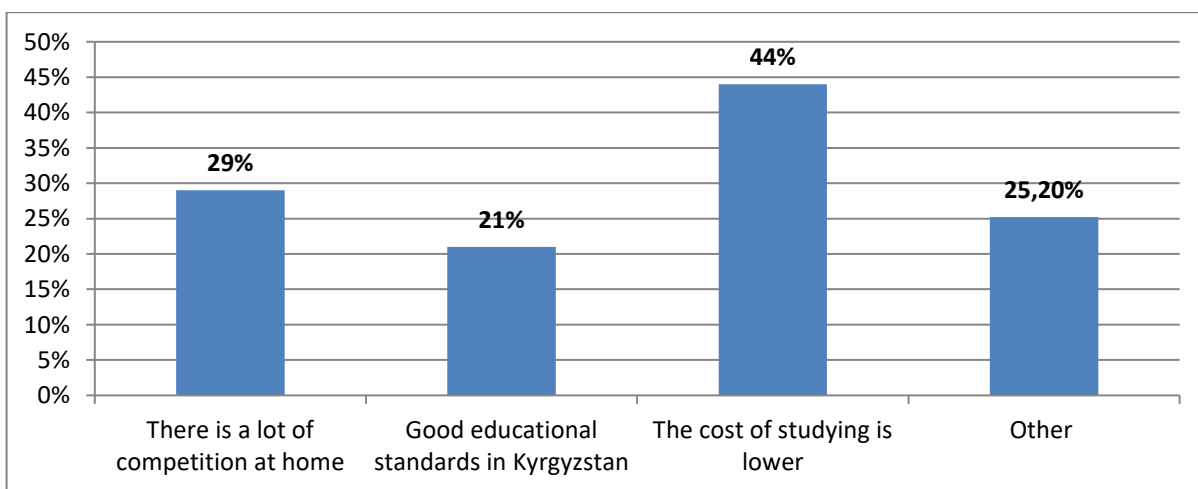
in the field of international educational services, and the education of foreign students is an important indicator of the status of an educational institution [1].

Currently, 30.5% (70 thousand 524) students - foreign citizens study at the universities of Kyrgyzstan, of which students from neighboring countries (CIS, Georgia, the Baltic states, etc.) make up 44 thousand 732 students, from far abroad (India, Pakistan, China, etc.) - 25 thousand 792 students. The largest number of students come to our country to receive higher professional education from India, Pakistan and Uzbekistan, and most of them study in medical programs. Today, higher education is regarded as a high-tech, intellectual-intensive sector of the country's economy, as a way of producing intellectual capital. In total, on average, 4 billion 771 million 610 thousand soms enter the universities of Kyrgyzstan only from students from these three countries per year [2].

The effectiveness of teaching a foreign student directly depends on how successfully she adapts to a new environment. The problem of studying the features of adaptation of foreign students to the conditions of life and education in our country is especially relevant in the current conditions of the formation of the international educational system. Kyrgyzstan can become an educational cluster in the region, which is possible in the ecosystem of a free-thinking society. Thus, the adaptation of foreign students, their “infusion” into the cultural, educational, domestic and psychological atmosphere of any educational institution requires assistance from both the administrative and student communities. It is also necessary to carefully study the factors that are of key importance for the effective adaptation of students and their successful learning [3, 4].

**Methodology, results.** To conduct the survey, questionnaires were developed containing both closed and open test questions intended for foreign students. The study was conducted in the design of a prospective random non-repeated survey of respondents in the incognito variant. 215 foreign students studying in Kyrgyzstan from different countries took part in the survey. Among the study participants, 74.9% were men, 25.1% were women. The vast majority of respondents were from Pakistan - 146 people), from India - 46 people, Ukraine - 6 people, 17 respondents mentioned another country. The study included students studying at public and private universities in the Kyrgyz Republic. In the course of the study, sociological methods (questionnaires, interviews) were used. Statistical data processing was carried out using the SPSS package and Microsoft Excel 2016.

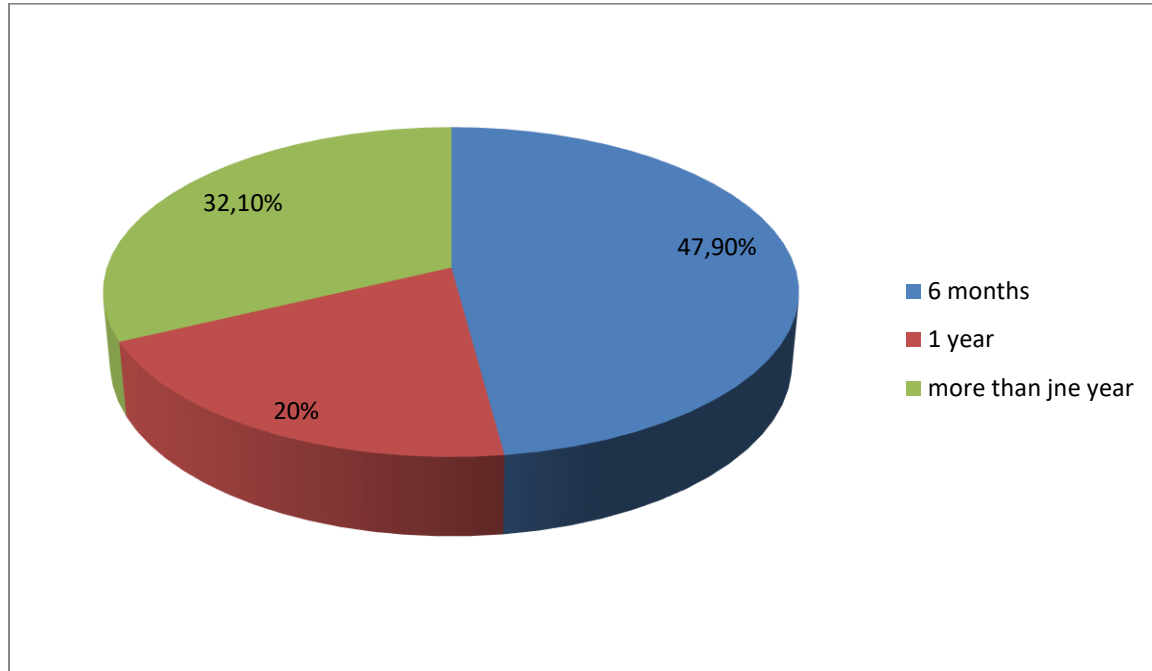
Among the reasons for choosing Kyrgyzstan as a state of education, the leading positions were occupied by the answer options “The cost of education in Kyrgyzstan is lower” - 44%, and the second position was occupied by the answer “There is high competition at home” - 29%, the third most popular answer was the answer “Other” - 25.2% (Fig. 1).



**Fig. 1.** Answers to the question “Why did you decide to study in Kyrgyzstan?”

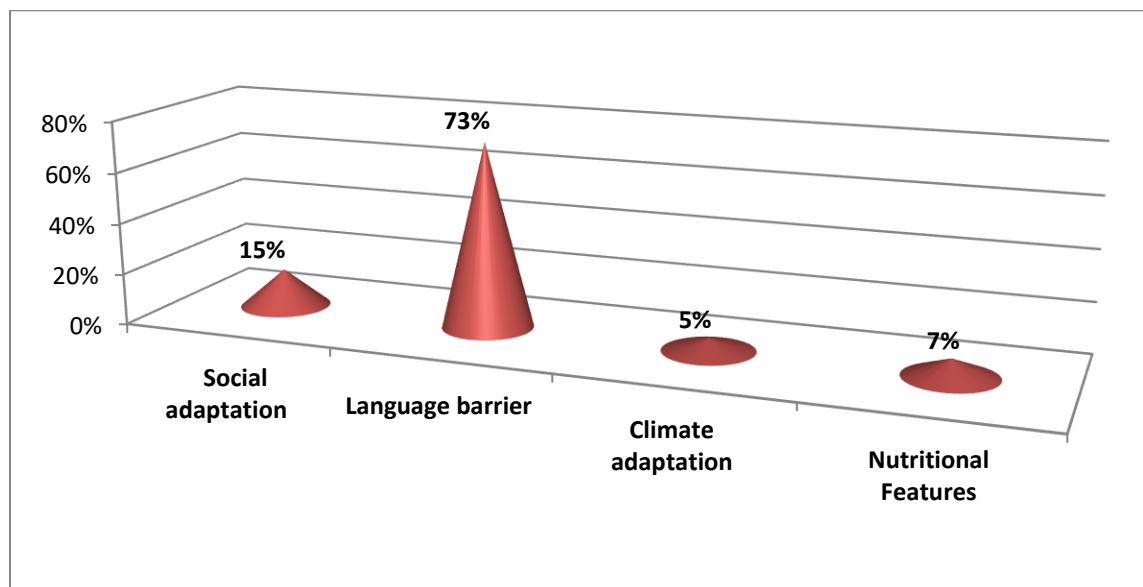
For the majority of respondents, it took 6 months (47.9%) to adapt to life in Kyrgyzstan, 32.1% marked the option “more than a year” and 20% - a year. This is due to the pres-

ence of specific ethnic and psychological characteristics, foreign students have to overcome various kinds of psychological, social, moral, religious barriers, master new activities and forms of behavior, i.e. undergo sociocultural adaptation - a complex multifaceted process of interaction between the individual and the new sociocultural environment. Personal adaptation, as a socio-pedagogical process, is aimed at removing the traumatic effects of the external environment and the inclusion of the individual in the changed social environment (Fig. 2).



**Fig.2.** Answers to the question "How long did it take you to adapt to life in Kyrgyzstan?"

Answering the question "What was the most difficult thing during your studies in Kyrgyzstan?" The vast majority of foreign students in their interviews noted the most difficult thing in learning is the language barrier (73%) Fig.3.



**Fig.3.** Respondents' answers regarding difficult moments during training

The second place is occupied by social adaptation (15%) and the third place is occupied by dietary habits (7%). You can comment on the latter, this is due to the fact that, for example, in India, a ban on beef has been introduced at the state level, since the cow is revered as a sacred animal in Hinduism. And in those parts of the country where Islam has a strong

influence, they do not eat pork. The majority of respondents to the question “Do you think that after graduation will you be able to take the exam in your home country”, 66% of students answered yes, 24.2% are not sure and 9.8% believe that they will not pass the exam in their country after finishing studies.

We also received different answers to the question “What, in your opinion, needs to be improved in the educational process”. The majority of respondents (46%) noted that they are completely satisfied with the educational process. Some students want to reduce general education disciplines like Manas, Physical Education, Biology, and Chemistry. When collecting an anamnesis from patients, they face a language problem that almost many patients do not know English, and the students themselves do not know Russian. This causes difficulties in communicating with patients, which causes low assimilation of the material.

Based on the results of the survey, it was revealed how much, on average, foreign students spend per month on living in the Kyrgyz Republic. 38.6% of respondents chose the option of more than twenty thousand soms, 27% took the second place from 10-15 thousand soms, the third place was taken by 24.7% from 15-20 thousand soms.

**Conclusions and future prospects.** Thus, the motivating factors for the arrival of foreign students to study in Kyrgyzstan are the affordable cost of education (44%). The majority of foreign students face certain difficulties, which are of a physiological and socio-psychological nature. Among the difficulties of a physiological nature, the main ones are getting used to the climate and national cuisine. It is more difficult to adapt to the language environment. According to the answers of foreign students, many respondents are confident that after graduation they will be able to take the exam in their home country (66%). In general, the education of foreign citizens in the Kyrgyz university is quite effective and is still attractive to students from a number of countries.

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### **APPROACHES TO INTERNATIONALIZATION OF MEDICAL EDUCATION IN THE PROCESS OF TEACHING THE SPECIALTY "PEDIATRICS" TO FOREIGN STUDENTS**

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**Annotation:** Since ancient times, the Russian principles of medical education have been characterized by fundamentality and deep traditions. Therefore, it is not surprising that the training of foreign students in this discipline takes place at the Department of Pediatric Diseases – the oldest pediatric department of the university. In this article, the staff of the department will share the main problems they face during classes with foreign students and some approaches to solving them.

**Keywords:** medical education; foreign students; concept of internationalization; acquiring medical knowledge; clinical thinking.

Since ancient times, the Russian principles of medical education have been characterized by fundamentality and deep traditions. Teaching of pediatric disciplines at Bashkir State Medical University has a glorious history and dates back to 1935. Therefore, it is not surprising that the training of foreign students in this discipline takes place at the Department of Pediatric Diseases – the oldest pediatric department of the university. In this article, the staff of the department will share the main problems they face during classes with foreign students and some approaches to solving them.

The term and the concept of internationalization were developed in the early 2000s by the International Association of Universities (IAU) in order to improve the quality of teaching and learning, research, and better match the formation of specialists to the needs of society; internationalization significantly affects the activities of all students and staff.

In junior courses, foreign students study basic subjects in English. At the same time, they adapt to life in a foreign country and study in the conditions of the Russian higher education system that are unusual for them. Therefore, it seems to us that the knowledge that students receive should consist of two components: the first is fundamental knowledge of biology, anatomy, histology, etc., and the second is the enrichment of students' language with the necessary linguistic professional knowledge in the future. It should be noted that for the vast majority of foreign students, English is not their native language, but only an intermediary language. Usually, they are quite good at it in everyday life. However, in the process of acquiring medical knowledge, professional orientation of a foreign language is required, which causes them quite great difficulties in understanding the meaning, in particular, of lecture material. To overcome such difficulties, we consider it rational for foreign students in junior courses in the process of linguistic education to offer various articles concerning specific nosological forms in English-language journals (so-called “topics”) for self-translation and development of clinical thinking. The learning process includes the interaction of linguists and subject matter specialists in order to prepare and read subject lectures, conduct practical and seminar classes in English with elements of the Russian language, followed by joint discussion and assessment of the level of translation and assimilation of educational material, making adjustments to the tested material. Such a program of integrated language and specialty training is being developed at Irkutsk State Medical University by the Department of Foreign Languages with courses in Latin and Russian as a foreign language together with all subject and clinical departments. The objective of the proposed program is the sustainable development of oral and written communication skills in English in the subject area of professional activity for the transfer of subject knowledge in the medical specialty. This creates a new educational product, namely an integrated course of each of the disciplines of the curriculum of the main professional educational program.

Currently, in terms of linguistic education, the CLIL – Content and Language Integrated Learning system is considered optimal, which is a teaching method based on mastering a subject area through a foreign language and a foreign language through a subject. The author of this system of internationalization of education is D. Marsh. In his works, he divided the process of studying the subject into three important components: socio-linguistic, cognitive-educational and cultural. To adapt this approach to our reality, we present it as follows.

- The subject-content aspect (Content), which provides a wide range of studying the subject, a special terminological base through a foreign language and preparation for further professional activity;
- Social and linguistic aspect (Communication), which creates conditions for the development of communication skills, deeper, professionally oriented learning of English and the opportunity to use acquired competencies in clinical practice;

- Cognitive-learning aspect (Cognition), which contributes to the increase of the motivational component of trainees, the development and use of various educational strategies, forms and types of educational and practical activities by them;

- Cultural aspect (Culture), implying the development of intercultural communication skills, adaptation to the peculiarities of Russian culture and relationships with students from other countries whose representatives are studying at our university.

The popularity of the CLIL methodology abroad, the features of its use at all levels of education are described in detail in numerous studies and are accompanied by positive reviews. In Russia, the described technique is not of a mass nature, but is used in fragments.

Using this system, it is possible to combine two very important components of education: to preserve the authenticity of the Russian education system and to internationalize it. Having passed through such a preparatory stage in the study of basic (fundamental) disciplines, students would come to clinical departments more prepared and motivated to study. At the same time, it should be noted that in any educational process there is a second part – a teacher, whose training should be given no less attention. A special place in the process of internal internationalization of the university is acquired by the level of development of linguistic competence of the teaching staff, who transmit knowledge not only in Russian, but also in English.

It should be understood that this is a quite difficult and time-consuming preparation for classes, requiring considerable effort to select the content of the material for classes. To implement this task, professionally oriented courses in a foreign language are required. However, these are not the only problems in the process of internationalization of medical education that we face when implementing “Basic Educational Program” (BEP) in the specialties “Medicine” and “Dentistry” at our department.

The programs provide for writing a medical history in Russian, which, of course, includes collecting an anamnesis by painstaking conversation with the child and his parents, examining the patient (finding contact with the child, being able to arrange and attract his attention) and analyzing the data of an additional (laboratory, instrumental) examination of the patient. Once again, it should be emphasized that this particular section of the discipline requires communication between the student and the sick child and his parents. This contact causes a lot of difficulties, therefore it requires the participation of a teacher as an intermediary.

In our lectures and practical classes, we present the basics of the classifications of various nosological forms adopted in our country and the standards of medical care for the pathologies studied, many of which differ from those used in those countries in which the graduate will work in the future. This feature requires the inclusion of additional material in the lectures, which is not taken into account by domestic programs for the study of this discipline. The same applies to a number of infectious diseases that are not found in our country and therefore are not included in the teaching programs of the discipline, but are quite common in the countries of permanent residence of foreign students (Africa, Asia).

The cases created at the department on the main nosologies studied within the framework of mastering the discipline “Pediatrics” became a great help in solving this difficult task. During their study, students have additional consolidation of the material, and, in the future, they demonstrate higher results when passing the certification.

It seems absolutely logical to revise existing approaches to language teaching and pay more attention to early language professionalization based on the CLIL methodology, which will bring the educational situation as close as possible to professionally meaningful communication.

Thus, the above describes the process of organizing the training of foreign students in the specialized medical discipline “Pediatrics”, the difficulties faced by the authors of the article in their work. It would be very interesting to get acquainted with the experience of other

universities that internationalize medical education in order to harmonize the education of foreign students and maintain the prestige of Russian higher education in the world.

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### **MODERN ASPECTS OF TEACHING THERAPEUTIC DENTISTRY IN THE LANGUAGE OF THE INTERMEDIARY**

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**Annotation:** The teaching of therapeutic dentistry in the intermediary language (English) contributes to the development of higher medical education in the Russian Federation, which in turn allows to increase the level of higher professional education. One of the priority areas for improving the educational process is to observe the ratio of students and teachers. It is necessary to strengthen control over the quality of studying the patient's native language (Russian) by English-speaking students at the initial training courses, which will make it possible to increase the level of dental care at a clinical appointment. An important task is to improve the quality of assimilation of theoretical and practical skills in clinical departments by students in an intermediary language. Particular attention should be paid to equipping the workplace of a dentist.

**Keywords:** Intermediate language learners, therapeutic dentistry, ways to improve teaching.

**Introduction.** Modern reality has sharply outlined the problem of professional training of medical workers. There is an acute shortage of highly qualified specialists everywhere in the industry. Therefore, it is natural that one of the main directions in the field of higher medical education is the need to significantly strengthen the practical aspect of training future doctors while maintaining the proper level of theoretical knowledge [1].

The team of teachers of the Department of Therapeutic Dentistry with the IDPO course of the Bashkir State Medical University of the Ministry of Health of Russia directs its efforts to implement the concept of developing higher medical education in the Russian Federation, based on the best traditions of Russian higher education, using the latest methods and technologies. Teaching therapeutic dentistry in English to students from among foreign citizens makes it possible to attract more students from different countries to the Bashkir State Medical University, thereby increasing the prestige of our educational institution. Currently, the number of students studying in the intermediary language (English) is growing.

In connection with the foregoing, the purpose of this work is to study the features and analyze the current aspects of teaching therapeutic dentistry in an intermediary language.

**Literature review.** Many authors share their experience in teaching foreign students, during which actual problems of learning are identified, methodological approaches are developed [2].



I.P. Lapin notes in his work that teaching medical students in clinical departments is a particularly difficult task, since it is necessary to communicate not only with the teacher, but also with medical personnel and patients in the state language. The lack of proper attention to the development of a culture of communication among medical students in the practice of teaching leads to illiteracy of students' speech, which makes it difficult for them to communicate, and on the other hand, to a significant decrease in the cognitive abilities of students [3].

Other authors express an opinion about the importance of combining the linguistic component, i.e. teaching a discipline in English with a professional medical orientation should increase the motivation of students to study the specialty. In this case, teaching in a foreign language allows to get up-to-date and relevant medical information [1].

Thus, the optimization of the educational process with foreign students provides for an integrated approach to solving a number of problems in order to improve the quality of training specialists for foreign countries.

**Main part (methodology, results).** The Bashkir State Medical University has been teaching foreign students for more than 10 years. At the Department of Therapeutic Dentistry, foreign students of the Faculty of Dentistry are trained from 2 to 5 courses. Every year, more than 200 foreign students study at the department, and every year the number of students in the intermediary language is growing. The teaching load for studying programs at the Department of Therapeutic Dentistry with the IDPO course exceeds 3000 hours per year. In clinical groups with an English-speaking form of education, 8-10 students study at the same time. In such conditions, it is sometimes difficult for a teacher to pay attention to each of the students, who often have a different level of basic knowledge in their specialty, their own abilities and interest in the discipline, and the language level.

Currently, the Department of Therapeutic Dentistry with the IDPO BSMU has a sufficient number of teachers who speak English, but due to the annual increase in the number of foreign students, a reserve of young teachers, graduate students and residents is constantly being prepared. For teachers at the university, special training is provided for professional medical English, which includes interviews with teachers of the Department of Foreign Languages, a course of practical lessons, mastering medical terminology through lectures and methodological literature.

The discipline "Therapeutic dentistry" is mandatory for foreign students and includes the following sections: "Examination of a dental patient", "Cariesology", "Endodontics", "Periodontology". In the course of studying the discipline, foreign students are given lectures and practical classes in English.

For a high-quality educational process at the department, all the necessary materials for classroom and extracurricular work of students have been prepared in English: work programs, methodological recommendations for practical classes, a fund of assessment materials, including test tasks and situational tasks, etc.

Thus, a significant basis for mastering the theoretical part of the subject has been created.

In addition, to ensure high-quality administration of the educational process, a page of the department has been created on the educational portal of the university website for English-speaking students, where information is provided in a timely manner about the daily timetable of lessons, thematic plans for lectures and practical classes, the location of classes in English, etc.

To improve knowledge, in addition to the mandatory literature, the team of authors of the Department of Therapeutic Dentistry created workbooks for each of the disciplines, lecture terminological dictionaries, interactive materials, presentations of practical classes in English. In the university library, as additional literature, there are textbooks and manuals of domestic and foreign publishers in English, their electronic versions.

The Department of Therapeutic Dentistry with the IDPO course of the Bashkir State Medical University of the Ministry of Health of Russia is a clinical department, which means

that the main link in the educational process is the mastery of practical skills by students. During practical lessons in clinical work and consultations of patients, the tactics of curing patients are worked out - a clinical examination of the patient, drawing up a plan for additional examination methods, determining a clinical diagnosis, a treatment plan based on a discussion of possible options for the treatment tactics of a dentist, drawing up a plan, stages, sequence of manipulations and predicting results. Students are necessarily involved in this process. Having no experience, students often form negative motivation in patients, the latter refuse to participate in the examination and treatment of foreign students. At this stage of independent work, the sense of tact of the teacher is very important.

To solve this problem, the department has created terminological dictionaries related to a specific theme of the lesson, so that students from among foreign citizens can communicate in Russian with patients. Thus, it is necessary to strengthen control over the quality of studying by English-speaking students of the patient's native language (Russian) in the initial courses, which will make it possible to improve the quality of assimilation of practical skills in clinical departments.

An important aspect of high-quality student learning is the interest and desire of the students themselves to gain knowledge on the lessons. In order to motivate students of the Faculty of Dentistry studying in the intermediary language (English), at the Department of Therapeutic Dentistry with the IDPO course of the Bashkir State Medical University of the Ministry of Health of Russia, in addition to the main classes, practical courses and master classes are held during student holidays as part of the educational winter and summer practical school "Dentistry in my passion". The goals of the educational school "Dentistry in my passion" are: increasing the effectiveness of student learning, stimulating interest in scientific activities, systematizing and deepening knowledge, developing and improving practical skills. The high attendance and activity of students at educational schools means of the great interest of the most students in conducting practical training not only as part of basic education, but also in their free time. Moreover, the number of foreign students attending these educational practical schools is growing every year.

The next necessary aspect of the training of dentists is to equip their workplace - it must be modern. Bashkir State Medical University treats this problem with understanding and the issues of equipping workplaces and practical rooms are resolved as needed. At our department, workplaces for students are equipped with simulators, modern dental units. In addition, the department provides an opportunity for practical work of students with portable equipment: micromotors, endodontic blocks, component tools and materials for the treatment of carious cavities and their subsequent filling.

Therefore, the main aspect of improving professional skills is taking into account the real possibilities of workplaces, the availability and a wide range of modern dental instruments and filling materials. Thus, the preparation of equipment, maintenance and equipment of the workplace play a very important role in the training of a dentist, especially in a therapeutic appointment.

**Conclusions and further prospects.** Thus, at the Department of Therapeutic Dentistry with the course IDPO of the Bashkir State Medical University of the Ministry of Health of Russia, significant work has been done to organize the educational process in English. Professional English-language studying of students from among foreign citizens plays a significant role in obtaining practical skills in the work of a dentist. Every year the number of foreign students at our department is increasing, in this regard, in order to maintain the high efficiency of the educational process, it is necessary to further expand and strengthen the material and technical base of the department.

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## **ON THE ROLE OF SCIENCE POPULARIZATION IN THE EXPORT OF EDUCATIONAL SERVICES**

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All over the world, the centers of attraction for students are those educational institutions where scientific research is actively conducted. In this regard, an important task for attracting new students is the wide coverage of the scientific achievements of a higher educational institution, which can increase its competitiveness in the export of educational services. To popularize the scientific life of the university, one should take into account the change in the modern information environment and use various platforms, including social networks. At the same time, it is important that the material is presented in an accessible form for perception by a wide audience and arouses interest.

In choosing a university, the scientific directions implemented in it are also important. So, today one of the relevant and promising scientific fields is medical geology – a developing scientific discipline that studies the influence of environmental factors on human health. The need for such studies is dictated by the results of disease mapping, which became possible in the second half of the 20th century thanks to the development of medical statistics and scientists discovered the relationship between the prevalence of diseases and the geological conditions of the area of residence. For example, a decrease in the prevalence of cardiovascular disease in volcanic areas was found, and an increase in the prevalence of type 1 diabetes mellitus was found to be associated with granites areas, etc. [1-3,5].

Over the past decades, research in this area has been especially active abroad [6–9], while, unfortunately, not much in Russia. At the same time, the Republic of Bashkortostan is one of the regions where, since the 2000s, such work has been carried out with close cooperation between physicians and geologists. The scientific background and achievements of the scientists of Bashkortostan increase the attractiveness of the Bashkir Medical University for foreign students who want to gain knowledge in this promising interdisciplinary field.

The authors would like to acquaint readers with some of the results of these studies.

It should be emphasized that the territory of the Republic of Bashkortostan is a unique opportunity for research in the field of medical geology, since there is a wide range of well-studied geological conditions that determine the diversity of the microelement status of the biosphere. The west of the republic is represented by a vast plain, confined to the eastern part of the East European Platform, and in the east is the Southern Urals, which occupies one third of the territory. The population of the republic is about 4 million people, of which 40% live in rural areas, which makes it possible to assess the role of regional geological factors in the health status of residents.

One of the first medical-geological studies in the Republic of Bashkortostan was devoted to the problem of the relationship between goiter and various geological conditions of the area of residence [4]. According to traditional ideas, the mountainous terrain is the most unfavorable in terms of goiter, however, the study revealed a paradoxical result. In the region of the Republic (Burzyansky), located on the territory of the mountainous Urals, the situation with goiter turned out to be the most favorable, which is natural from a geological point of view and is explained by the wide development of carbonate rocks here, which are distinguished by an optimal microelement composition and a favorable effect on the biosphere.

An analysis of the microelement status of the inhabitants in terms of the content of iron, chromium, manganese, copper, cobalt, selenium, nickel and zinc in the hair revealed a clear agreement with the regularities of the distribution of impurity elements in the geological environment. Thus, among the inhabitants of settlements located on carbonate rocks, the level of the studied microelements turned out to be minimal, which corresponds to the information about the low level of impurity elements in these deposits. On the contrary, the inhabitants of the region (Sharansky), located in the platform part of the republic, found an increased level of microelements, which is also consistent with the geological data: the territory of the region in the era of accumulation was a relief depression where impurity elements accumulated. This is connected with the spread of cuprous sandstones here, which in the 18th century were developed as copper ore (the village of Sharan is located on the site of a former copper smelter). From a medical point of view, it was important to identify the association of elevated levels of trace elements with an increase in the incidence of thyroid pathology among residents of this area.

The results of the work showed that the microelement profile of the human body has a zonal character, due to the geological and geomorphological structure of the area. At the same time, the microelement status of the natural environment is one of the factors affecting the state of human health. Based on the results of the study, a methodology for microelement mapping of territories was developed and a map of microelement zoning of the Republic of Bashkortostan was presented [4].

The results obtained are universal in nature and applicable to various territories, in connection with which international cooperation is of particular interest. Interdisciplinary research carried out at the Bashkir State Medical University is in high demand today in the educational field. Popularization of scientific research in the field of medical geology and other scientific areas, in our opinion, is one of the effective mechanisms for increasing the potential of the Bashkir State Medical University in the export of educational services.

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## **DISADVANTAGES AND ADVANTAGES OF DISTANCE LEARNING**

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**Annotation.** The article discusses the nuances of distance learning at the university, highlights the advantages and disadvantages of using distance technologies, and provides examples of programs and applications.

**Keywords:** distance learning, distance technologies, advantages of distance learning, disadvantages of distance learning.

**Introduction.** Over the past year, the issue of introducing distance learning technologies in the learning process has become increasingly relevant. There are many interpretations of the concept of "Distance learning". For example, E. S. Polat, Head of the ISMO RAO Distance Learning Laboratory, says that distance learning is "an organized learning process that involves: active exchange of information between students and teachers", and in the opinion of Tikhonova A. N. distance learning is purposeful training is usually carried out at a distance from the teacher's location.

According to the Ministry of Education and Science, about 80% of Russian universities have switched completely to the remote format of working with students, and from universities subordinate to the Ministry-all 100% (according to the Briefing of the Minister of Science and Higher Education Valery Falkov of 25.03.2020). [1].

Distance learning has a number of advantages:

- accessibility and convenience of using the distance learning system: the ability to receive information at any time of the day, at a comfortable pace, from anywhere in the world.
- efficiency and speed of receiving information: quick access to literature and educational materials that students can find on their own, or with the help of a teacher via telecommunications (email, social networks).
- cost-effective: distance learning is cheaper than full-time and part-time education.
- remote learning allows you to learn while working, without interrupting, and immediately use the acquired knowledge in practice/at work.
- remote technologies are suitable for organizing an individual approach; However, distance learning also has a number of serious drawbacks:
- narrowing of the potential audience, not everyone who wants to study has the opportunity to join the learning process (computer, Internet access).
- insufficient computer training and / or lack of practical knowledge of many potential participants in the process.
- insufficient discussion space and personal interaction
- strong motivation of the trainee is necessary.

According to a 2019 HSE study, university teachers with an academic degree themselves have a low (3.2 points out of 5) assessment of their level of proficiency in remote technologies, and every 4th of them has never used remote video communication services to participate in webinars and video conferences or conduct similar events over the past 3 years. events [2].

There are several approaches to the concept of distance education. The first one, which is quite common today, includes the transmission of information by teachers, and the personal

productive activity of students is in the background. The second approach focuses on the integration of student and teacher work, which ensures higher productivity of the educational process. The process of distance learning can occur synchronously, for example, when using video communication, and asynchronously-via email.

The Department of Physical Culture of Bashkir State Medical University in the period of distance learning, together with the BSMU Media Center, prepared video lessons on conducting physical training sessions, physical education centers [https://vk.com/video-176637157\\_456239305](https://vk.com/video-176637157_456239305), [https://vk.com/video-176637157\\_456239312](https://vk.com/video-176637157_456239312), [https://vk.com/video-176637157\\_456239316](https://vk.com/video-176637157_456239316), [https://vk.com/video-176637157\\_456239319](https://vk.com/video-176637157_456239319). Students can independently study video lessons, guidelines for each section according to the work program for the discipline "Physical Culture and Sport". Currently, there are many telecommunication services and platforms that can be used for distance learning. In particular, email, electronic journals, Usenet conferences, skype, teams, zoom, and others. Also, various messengers and social networks are successfully used for faster and more targeted communication between teachers, teachers and students. social networks (Vk, WhatsApp). Due to the latest developments, among all the many platforms for distance learning, the most effective is the service zoom [4].

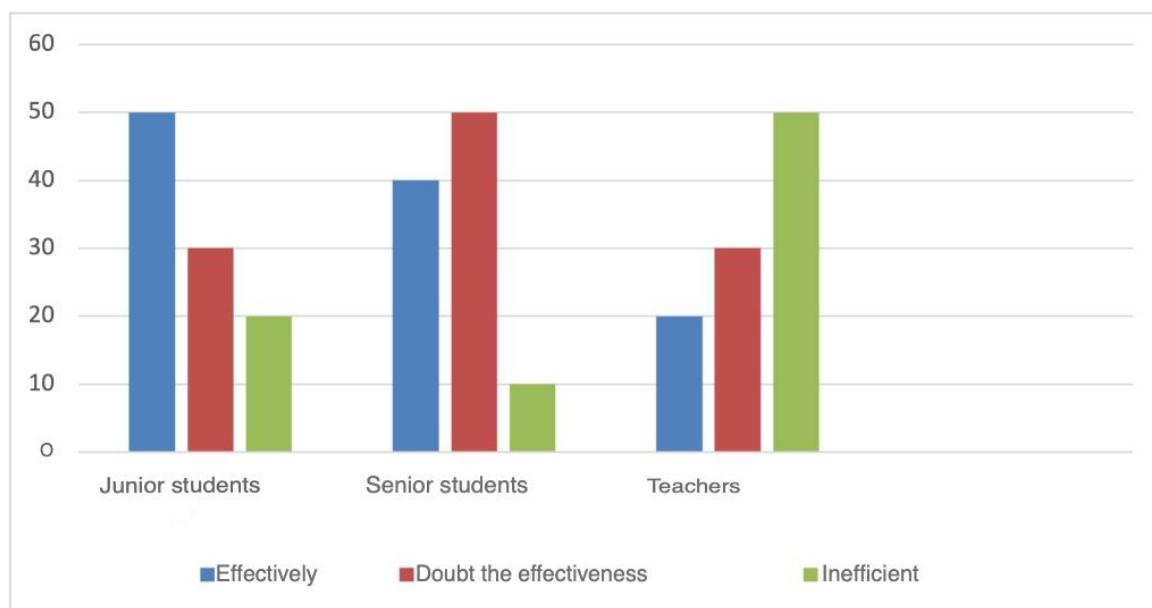
Advantages Zoom are:

It is worth noting that working on the ZOOM platform is convenient and understandable. Using additional options makes learning interesting and productive. Having such features as enabling video content or, for example, disabling comments on the screen. Thus, you can easily manage the educational process, students repeat a set of exercises at home. To check those present at the session, the chat helps us, i.e. you can see who is registered. In a word, there are different features of the platform so that training is lively, useful and high-quality. We conducted a sociological survey, asking students of different courses and teachers about the effectiveness of distance learning. The study data are presented in (Table 1).

Table 1.

**Data from a survey of students and teachers on the effectiveness of distance learning**

	Junior students	Senior students	Teachers
Effectively	50%	40%	20%
They have doubts about the effectiveness	30%	50%	30%
Inefficient	20%	10%	50%



**Fig. 1.** Data from a survey of students and teachers on the effectiveness of distance learning

Thus, we can conclude based on the data of a sociological study that not everyone is satisfied with the effectiveness of distance learning (Figure 1). Conclusions and future prospects. Based on the above, we can conclude that distance learning is a complex, multi – factorial process that requires attention to a variety of factors (different ability of teachers and students to access the Internet, difficulties in accessing equipment – PCs, mobile phones of sufficient capacity, etc.). This approach to learning has its pros and cons. But, nevertheless, remote training is the only way to continue the learning process safely and in a timely manner in the face of a pandemic.

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### **APPLICATION OF DIGITAL TECHNOLOGIES WHEN TEACHING CHEMISTRY TO FOREIGN STUDENTS**

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The relevance of the chosen topic is due to the need to introduce modern digital technologies into the educational process in connection with the changing requirements of the modern labor market.

Key words: digital technologies, knowledge control, online learning.

The formation of the digital economy and digital society are the global trends of the modern world, which are becoming part of the global ecosystem [1].

The labor market is undergoing great changes due to the transition to a digital economy. IT technologies are used in all spheres of life, so the competent impression and application of digital skills is becoming more valuable for employers every day.

Today, due to the changing requirements of the modern labor market for future young professionals, higher education is faced with the task of teaching students the effective use of both cross-cutting digital technologies and industrial ones. It seems possible to accomplish this task with the development of material infrastructure, the use of various digital programs in teaching, as well as the formation of digital literacy of teachers and students.

Every year the number of automated operations in the field of professional activity of a doctor is increasing, so future young specialists need to freely navigate in the digital space.

The study of the discipline "Chemistry" according to the curriculum of the specialty 31.05.01 General medicine is carried out in the first semester of the first year. In particular, when studying the discipline by foreign students studying using the intermediary language - English, the Department of General Chemistry of the Bashkir State Medical University creates learning conditions taking into account the latest achievements in the digital economy. Modern technical means are being actively introduced into the educational process, which makes it possible to individualize the development of disciplines and contributes to the development of a creative approach both on the part of teachers and students.

Lectures and classes with foreign students who have encountered difficulties with their arrival in Russia and temporarily staying in their native countries are held in the meeting mode in the Microsoft Teams application. When teaching foreign students online (lecture course), the teacher often does not have the opportunity to see the students and cannot communicate with them in real time. This format of education dictates new requirements for the organization of the educational process. In this regard, we included the Internet resources <https://www.mentimeter.com> and <https://banktestov.ru> in the lectures "Chemistry" discipline. The Mentimeter online service allows you to vote and poll foreign students during the lecture, the Test Bank portal monitors the test results on the tests we have created on the topic of the current lecture. Such feedback is essential in online learning: the involvement and motivation of students increase significantly.

As digital educational resources that provide the operational and activity component of students, we used resources aimed at organizing practical activities in order to consolidate knowledge, develop skills and abilities.

Control of students' knowledge is one of the many tasks of a teacher. The use of digital technologies opens up a huge range of opportunities for us that were previously unavailable when using traditional teaching methods.

To manage the work of the group, we used the Trello visual tool, which allows you to track which task the student is doing and which of the tasks have not yet been completed, thanks to the ability to create checklists and set a deadline for each task.

The control of students' knowledge necessarily involves the performance of test tasks. Currently, teachers have at their disposal a number of online services that can significantly save time. Through the use of online services, new opportunities open up. So, test results can now be evaluated automatically, answers can be collected remotely, and questions can be edited instantly. For independent development of online tests, we use the Madtest constructor. This service is completely in Russian, but tests can be made both in Russian and in English.

When solving situational problems, students actively get acquainted with programs for drawing chemical formulas (ISIS Draw, ChemSketch), which are free, which contain very convenient radical tables, ring templates, etc.

The most frequently used online service by foreign students was the «Acetyl.ru» website. This service makes it possible to show the results of chemical reactions with set coefficients and conditions; quickly calculate the masses and quantities of substances of reagents according to the tasks using a chemical calculator, which simplifies and speeds up the solution of situational problems.

In addition, students get acquainted with the programs for molecular modeling GAUCSSIAN, Q-Chem, which are actively used in computer modeling in chemistry, biology and medicine to describe the structure and physicochemical properties of various chemical compounds.

It was difficult to complete a laboratory workshop in an online learning environment. The teachers of our department recorded and edited videos of the necessary experiments. Students who study online have the opportunity to watch videos of laboratory work, perform the necessary calculations under the guidance of a teacher, fill in tables, build graphs, and draw conclusions based on the data received.

At the end of the lesson, before monitoring the assimilation of the topic of the lesson, it is possible to organize joint work of students on the solution of a case, a situational task, including among students with different levels of training, in pairs. At the same time, mutual learning, mutual control of each other takes place, which contributes to a better assimilation of the topic of the lesson. Students prepare a joint solution to the problem and present to the group. Situational tasks, as a rule, are an example from medical practice, for the solution of which chemical knowledge is required. The problem situation is created capacious, covering a wide range of issues, stimulating the identification of cause-and-effect relationships, creating students' interest in solving the problem situation. In weak groups, students perform a search



for a solution under the guidance of a teacher. In groups with a good level of preparation, the teacher provides general organization, guidance and control. Joint work in the process of discussing the topic of the lesson allows for the active participation of students, it becomes possible to consider any point of view on the problem and identify the strengths and weaknesses of the assumptions and options for solving the tasks and questions, which significantly increases the degree of assimilation and survival of knowledge.

Our little experience of using digital technologies in online education for foreign students has shown that the educational process is becoming more dynamic, interesting and flexible. Therefore, in the future we plan to introduce new digital technologies into education that will help both students and teachers to keep up with the times.

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### PHYSICAL ACTIVITY AS AN IMPORTANT COMPONENT IN THE SYSTEM OF PHYSICAL TRAINING OF BSMU STUDENTS

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**Annotation.** An important component of a healthy lifestyle is physical activity. Low physical activity of medical university students is one of the important problems of university education, and is also one of the factors of the occurrence of chronic diseases. Preserving the health of students is one of the important tasks.

**Keywords.** Physical Culture. Health. Students. An active lifestyle.

**Introduction.** Preserving the health of students is one of the important tasks. For the implementation of the educational process in the discipline "Physical Culture" at the university, the presence of information competence in the system of natural health improvement is required.

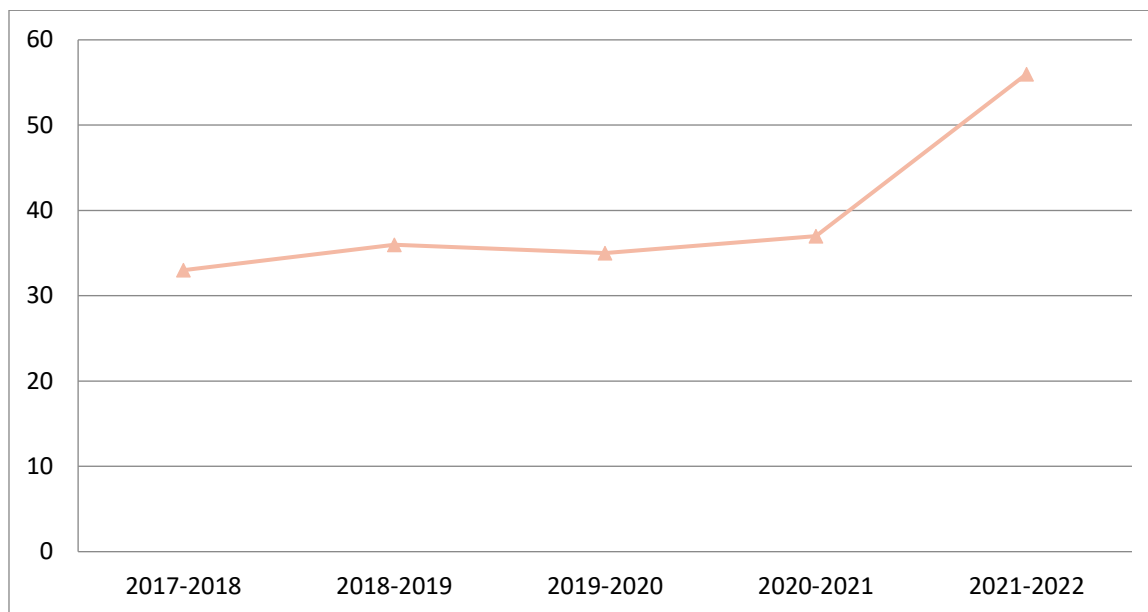
**Literature review.** Health culture is the basis of educational activity of the style of genetic behavior (Shchedrin A.G., 2003). However, the methodological aspects of this area of preventive medicine, sports and recreational activities remain insufficiently developed.

A modern medical university student is not sufficiently knowledgeable in the field of preventive medicine regarding both theory and practice. The use of an environmental approach in physical culture and sports work with the population makes it possible to change the motivation, needs and value orientations of a modern medical university student, a future specialist carrying a healthy lifestyle into society.

**The main part (methodology, results).** In recent years, there has been a steady trend of increasing the number of students with impaired health. The general increase in the morbidity of undergraduates occurs against the background of a decrease in physical development of the level of physical fitness.

The students were assigned to special medical groups based on the conclusion of medical supervision, after they passed a comprehensive medical examination at the BSMU clinic.

We have studied the dynamics of the number of BSMU students engaged in a special medical group over the past five years (2017-2022).



**Fig.1.** The number of students of Bashkir State Medical University belonging to a special medical group in the period from 2017 to 2022, (%)

The figure shows that every year from the 2017-2022 academic year, the percentage of students studying with a special medical group is growing. By 2017-2018, this indicator increased to 33.0%, and by 2018-2019 it increased to 36.0%.

It should be noted that the most common diseases of BSMU students engaged in a special medical group are myopia, chronic gastritis, scoliosis, flat feet, bronchopulmonary diseases.

The professional orientation of the content of the educational and rehabilitation process is the backbone of educational and extracurricular activities, which requires disclosure of the close connection of physical culture, physical culture and sports activities with the professional orientation of the individual, understanding of interdisciplinary interaction in ensuring integrative professional readiness. Wide promotion of health improvement, encouragement of active participants in health activities (sports volunteer) will also help to create a special environment in the educational institution, being in which the student will not be able to choose another path of self-improvement.

The proposed technology for the formation of a culture of saving the health of specialists – future doctors of BSMU – will allow you to get an idea of the variety of ways and approaches to the main profession, which is formed in the modern theory and practice of medical education.

The purpose of this work was to evaluate innovative approaches to the organization and implementation of physical culture together with healthy lifestyle in a medical university.

Every year, medical examinations are conducted among first-year students at the beginning of the academic year in order to identify health disorders, which is the evaluation criterion for enrolling them in a special medical group. For students with a low level of physical health, the teacher of adaptive physical culture conducts classes in a gentle mode. The main direction of physical education for such students is the correction of physical condition by means of physical culture with the use of wellness techniques.

As part of the curriculum for the comprehensive development of students, classes in a swimming pool are included (providing medical assistance and skills for rescuing a person on the water).

Every year, 3,000 students and 300 students of BSMU acquire the skills of "health formation" within the framework of the program of health promotion and involvement in physical culture and sports. Thus, they include in the program the creation of fitness centers on the basis of each student campus, the activities of a sanatorium-dispensary for the purpose

of conducting a therapeutic and wellness process for students, the creation of specialized structures, such as a sports club, a volunteer center, a tourist club "Vitalis", a sports and wellness camp "Pulse". Also, the professional orientation of the content of the educational and sports process includes close cooperation with the centers of professional training of athletes. Within the framework of cooperation between BSMU and the Dynamo Center, also with the biathlon center and the Olympic Reserve School for alpine skiing it allowed to conduct training sessions of a professionally applied orientation. It also allows holding republican and All-Russian competitions among students of BSMU.

**Conclusion and future prospects.** Thus, we can state the priority of physical culture and sports at Bashkir State University. Physical education and sports contribute to the strengthening of health and the formation of a healthy lifestyle.

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### **EDUCATIONAL ADAPTATION OF STUDENTS FROM FOREIGN COUNTRIES WHEN STUDYING IN THE SPECIALTY OF DENTISTRY**

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**Abstract.** The article deals with topical issues concerning the educational adaptation of students from foreign countries at the Department of Therapeutic Dentistry. The degree of their adaptation to the new educational realities was studied by the method of a sociological survey. The object of the study were 624 students from foreign countries of the Faculty of Dentistry. We have identified factors contributing to their successful adaptation to new realities - overcoming the language barrier, as well as getting used to the conditions of the Russian system of higher professional medical education.

**Keywords:** adaptation; foreign students, educational environment, medical education

**Introduction. Literature review.** Currently, the modern market of educational services contains a large number of offers in various areas and levels of professional training, including the training of highly qualified medical specialists for the healthcare of the Russian Federation, as well as near and far abroad, which is an important criterion for a competitive, in-demand higher education system on the world market. The main purpose of this criterion is to train highly qualified specialists capable of adapting to modern labor market conditions [1, 2, 3, 4, 5, 6, 7, 8].

The implementation of the educational process among foreign students at BSMU since 2018 is associated with the adoption of the national project "Education", the Federal project "Export of Education", as well as the academic leadership program "Priority -2030", which together define as a priority task ensuring the global competitiveness of Russian higher professional education. These projects and programs consider Russia's entry into the number of leading countries in the world in terms of the quality of higher professional education and assume an increase in the number of foreign students (up to 425 thousand people) among all Russian students. The implementation of these programs and projects at the present stage is carried out at BSMU, at the moment 4174 people from among foreign citizen students from foreign countries receive medical education at the university among all students, an increase in the proportion of foreign students by 2030 to 7000 thousand is being considered.

**The purpose of our work** was to study the degree of adaptation to the educational process among foreign students at the Department of Therapeutic Dentistry.

**The main part (methodology and results).** The aggregate of all students from among foreign students in 1-5 courses of the Faculty of Dentistry for the 2022-2023 academic year was 624 people, while 96% of people came to study from Egypt, 2% from Iran, 2% from Iraq, 1.76% are studying on a budget form, according to the quota of the Ministry of Science and Higher Education of the Russian Federation -1.76%, on a paid basis – 98.23%. 39.6% of people noted the rapid pace of overcoming the language barrier, difficulties with overcoming them were revealed in 58.65% of people.

The perception of the conditions and specifics of the Russian system of higher medical education requires significant efforts from foreign students, so many of them are unprepared for such loads. A significant number of students, 43.3%, note a deterioration in well-being and the presence of increased fatigue, 56.7% of students note that the process of getting used to new conditions is not easy.

It should be noted that the students at the Faculty of Dentistry who came from Egypt have positive motivation to study and average academic performance, while they have an overestimated self-esteem of their theoretical and practical knowledge. Students from Iran and Iraq have a higher motivation to study, since studying at a university is considered by them as an opportunity to get a decent place in life in their countries in the future, in 100% of cases they are satisfied with the choice of the specialty "Dentistry".

A strong internal motivation to obtain higher professional education is not always observed by too high a rating of training, nevertheless, they are ready and motivated to overcome various difficulties not only the language barrier, but also difficulties in studying purely theoretical disciplines, while they have a high motivation to study direct disciplines in the specialty of Dentistry, working out and mastering various practical skills, which together contributes to the clear development of theoretical knowledge gained during classes and lectures. The vast majority of students 89.9% demonstrate a high focus on the implementation of educational goals that open the way for them to their chosen profession and believe that their academic results are achieved only by honest work.

**Conclusions and future prospects.** The adaptation of foreign students to the educational process differs from the adaptation of Russian students, it depends on many factors: national, regional, religious characteristics, etc.

Starting from the first year, these students go through the process of language adaptation, master adaptation to theoretical and practical training, which together makes it possible

to acquire and assimilate them, but also serve as a criterion for the development of their professionally significant qualities. This process lasts throughout the entire period of study in the specialty, as new disciplines appear every term that require their development. In the process of mastering and mastering academic disciplines, it is also important to involve them in extra-curricular activities, to involve them in research work.

Thus, the educational adaptation of foreign students is a criterion for their self-improvement and their further adaptation to the realities of medicine in their countries. The understanding of their higher education is also due to the prestige of the specialty Dentistry in their country.

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### **PECULIARITIES TO ORGANIZATION OF EDUCATIONAL AT THE DEPARTMENT OF TOPOGRAPHIC ANATOMY AND OPERATIVE SURGERY IN THE ERA OF INTERNATIONALIZATION**

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**Abstract.** In modern conditions teaching in a medical university requires constant work on the effective combination of classical forms of teaching with new approaches to learning, which requires searching for new synthetic, integral forms of learning, based on the use of a wide range of traditional and new information technologies and technical means, organization of dialogue exchange between the teacher and students, especially in the era of internationalization. The number of foreign students studying at our university increases every year and, therefore, the internationalization of the educational process affects all areas of the university, including the Department of Topographical Anatomy and Operative Surgery. As the global export of educational services dictates the need to teach students in two languages, the role of a teacher in training a specialist becomes great, requires additional training especially in overcoming the language barrier. Joint training of Russian and foreign students posi-

tively influences the quality of graduate and specialist training in a bilingual environment. Taking into consideration the trend of internationalization, the staff of the department developed an appropriate educational and methodical complex and introduced into the learning process some innovative technologies, based on the peculiarities of the training contingent, which involves using a foreign language in the educational process.

**Keywords:** topographic anatomy and operative surgery, educational process, international student scientific circle, surgery Olympiads, master classes, winter school for international students, innovative teaching technologies.

Education at a higher educational institution provides, in addition to obtaining theoretical knowledge and practical skills, their research activities. In recent decades, practical medicine has made a big breakthrough in the diagnosis and treatment of many diseases. Modern, minimally invasive and robotic treatment technologies are being actively introduced, instead of traditional methods of treating surgical pathology. The study of the discipline topographic anatomy and operative surgery, as a fundamental discipline, provides for obtaining knowledge of the structure of organs and systems from the point of view of their relationship and mastering the methods of treatment of urgent surgical pathology. Along with traditional teaching methods, familiarization with the achievements in the field of modern surgery and attracting students to research work is the main goal of the department.

The world export of educational services in modern conditions dictates the introduction of some innovative teaching technologies into the learning process, based on the characteristics of the trained contingent. Since the influx of foreign students to BSMU has been increasing in recent years, there is a tendency to attract employees to use a foreign language in the educational process. The internationalization of education affects all areas of the university's functioning, including the Department of Topographic Anatomy and Operative Surgery. In the era of internationalization, along with the shortcomings that have arisen, such as the lack of teachers with knowledge of a foreign language, there are also positive sides.

To improve the quality of education at our department and the interest of students in this subject, along with the cathedral student circle, the international student society of the department, winter and summer schools for foreign students, master classes on certain topics, the use of remote analysis of surgical interventions, etc. are organized. Especially noteworthy is the use of a team work method in practical classes or self-training, where both Russian and foreign students participate, solving a certain task of mastering practical skills.

Game methods, simulators, mockups, the use of the network in practical classes arouses interest in our discipline. Working with SSS allows, firstly, to increase the interest of students in surgical disciplines, and the method of teamwork increases the spirit of competition. Also, within the framework of the SSS, the Olympiad movement functions at the department. The composition of the Olympic surgery team is formed by selecting the most capable students on a competitive basis from students of 2-6 courses of medical, pediatric and foreign faculties. The results of systematic training of foreign students lead to the fact that they often take prizes at various levels of Olympiads as part of an international student team.

To form the Olympic team, interdepartmental intra-university, inter-university Olympiads in surgery are held, where the most talented students are determined in separate nominations. The surgery team annually participates in the Volga Region Surgery Olympiad and shows some success. In order to maintain continuity, senior students help in mastering the practical skills of junior students.

Participants of the student scientific society actively participate in the research activities of the department. The main scientific directions of the department in recent years are sphincterology and tissue regeneration. Students, under the guidance of the department staff, determine the directions of scientific research, participate in conducting experiments and statistical processing of the data obtained. The data obtained as a result of scientific work are reported at annual conferences of students and young scientists.



**Fig. 1.** The study of instruments in a practical lesson.  
Teachers Adiev R.F., Gibadullina F.B., Aria N.R.

Participation in the student scientific society of both Russian and foreign students is an important component of the educational process at a medical university, which allows you to increase the level of competence in the field of studied disciplines, hone practical skills, stimulate future doctors to independent activity, gain additional knowledge. Internationalization of the educational process increases the level of competence of students, teachers and the university as a whole.

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### **MOTOR ACTIVITY IS THE BASIS OF A HEALTHY LIFESTYLE OF MEDICAL UNIVERSITY STUDENTS.**

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**Abstract.** According to Socrates: "all professions are from people, but only three are from God - a teacher, a judge and a doctor." Interest in the profession of a doctor has been at



all times, but the coronavirus pandemic has caused a special attitude among young people to this heroic profession. The Minister of Health of the Russian Federation Mikhail Murashko noted that about 34,500 people became first-year students of Russian medical universities in 2022. However, studying at a medical school is very specific.

**Key words:** healthy lifestyle, physical activity, medical students.

**Introduction.** Lectures, seminars, term papers and laboratory work, practice in medical institutions require a lot of effort with a predominance of mental work over physical. The desire of students for high academic performance is often accompanied by low physical activity [2,5]. The authors of the article share their personal experience of including methods for the formation of a healthy lifestyle among medical students in the educational process.

**Literature review.** The postulates of the ancient Greek philosopher Aristotle “Movement is life, and life is movement!” more relevant than ever at the present time is the predominance of mental labor over physical labor. Physical inactivity is a “disease of civilization”, which, according to WHO, affects every fourth person on the planet, negatively affects the body of a modern person, contributing to the emergence of dangerous cardiological and endocrine diseases. It is also alarming that hypodynamia ranks fourth among the causes of death. It is known that people with a sedentary or sedentary lifestyle live less than those involved in sports. Physical inactivity of students is often associated with an irrational daily routine, educational overload, work at a computer, as a result of which there is little time for physical activity [3,6,7].

**The main part.** At the Bashkir State Medical University (BSMU) of the Ministry of Health of the Russian Federation, 11.4 thousand students from Russia and 55 countries of near and far abroad receive higher education. In his address to applicants as part of the 90th anniversary of the university, Rector of BSMU Academician of the Russian Academy of Sciences Pavlov V.N. said: “Studying at a medical university is much more difficult than at other universities. You need a certain mindset, a good memory and working capacity.” Undoubtedly, healing is a special kind of activity, when a doctor, performing his professional duties, solves problems of a moral and ethical-deontological nature [1]. The teaching staff of BSMU constantly introduces new technologies into the educational process to form the personality of medical students and improve their performance. At the same time, methods for maintaining optimal physical activity of students play an important role as a factor in increasing commitment to learning and improving academic performance.

The Department of Medical Rehabilitation, Physical Therapy and Sports Medicine with the course IoAPE BSMU trains students in the disciplines “Medical Rehabilitation”, “Physical Rehabilitation and Sports Medicine”. Training modules consist of a lecture course and seminars. After listening to the theoretical basis of the discipline at lectures, students begin practical classes at the clinical bases of the department, located in the hospitals of the city, the medical and sports dispensary and the sanatorium “Green Grove”. Practical classes include not only a classic analysis of educational material with a survey of students on the topic of the material covered, but also the involvement of future doctors in physical activity in the process of physical education and sports. At the same time, students actively participate in the educational process, mastering the clinical foundations of medical rehabilitation and sports medicine. Seminars, which take place not only passively sitting at study tables, but also in active work in gyms and physical rehabilitation rooms, help in the fight against the inactivity of medical students. “Walking and movement contribute to the game of the brain and the work of thought,” said Jean Jacques Rousseau. In the process of education, we involve our students in various recreational activities (All-Russian preventive action “10,000 steps to health”, “Heart route - route of health”, School of Nordic walking, School of young rehabilitologist, etc.) and sports competitions held at sports objects in Ufa (Fig. 1).

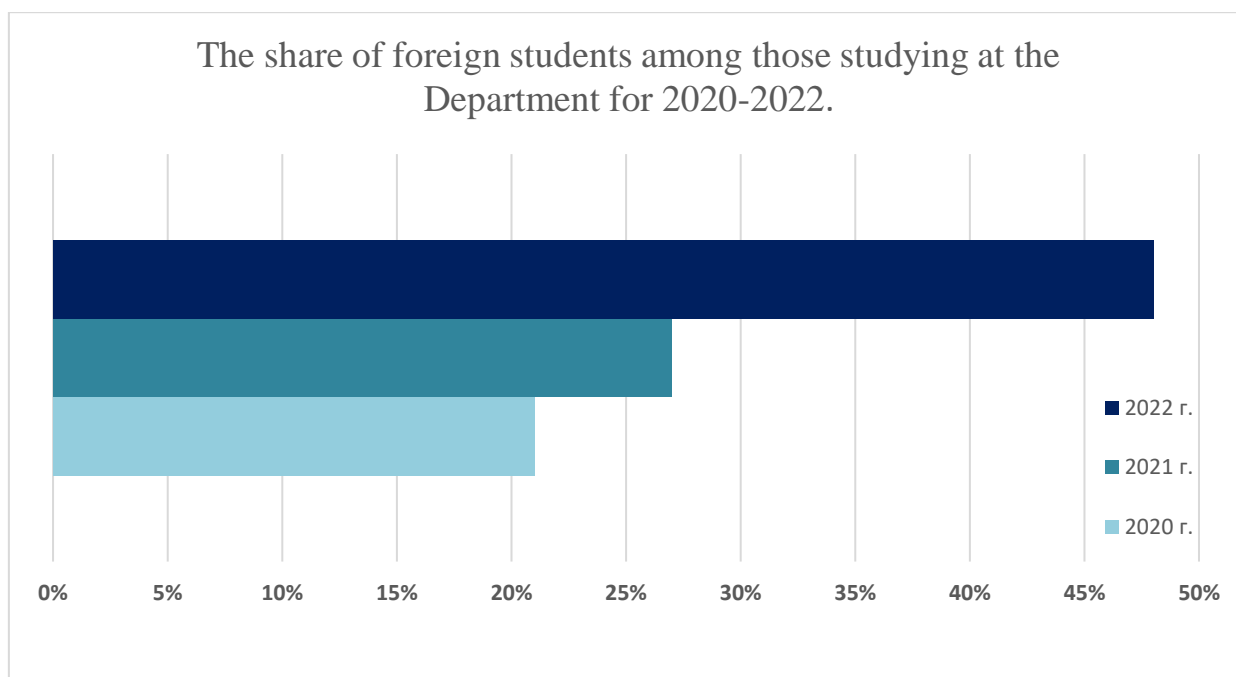




**Fig. 1.** BSMU students participate in the All-Russian preventive campaign "10,000 steps to health"

The inclusion of methods of extracurricular motor activity in training modules implements the principle of the unity of teaching and education in pedagogy.

In recent years, there has been a trend towards a steady increase in the proportion of foreign students among our students (Fig. 2), which necessitates the search for new teaching methods, taking into account the linguistic and socio-ethnic characteristics of foreign students.



**Fig. 2.** The share of foreign students among students at the Department of Medical Rehabilitation, Physical Therapy and Sports Medicine for 2020-2022.

An important role in the process of communication with foreign-language students is provided by game methods for conducting seminars, which make it possible to identify personal qualities in the process of not only mental, but also physical activity. It is known that classroom and extracurricular activities unite medical students into an international team. In the course of joint activities, interpersonal relations improve, contradictions between students are smoothed out, which helps to increase their speech activity and accelerates sociocultural adaptation in a foreign language environment [4]. We noticed that the inclusion of health programs in the educational process causes a lively response from medical students and contributes to the growth of their motivation to study our disciplines, and subsequently to choose a future specialty. We were deprived of this opportunity during the period of strict quarantine

due to the COVID-19 pandemic in 2020, so we had to include the physical activity of students by including physical education breaks in classes on online platforms. Teaching students through the expansion of motor activity contributed to a better assimilation of the discipline being studied, as evidenced by the increase in student performance. This confirms the statement of the German philosopher Hans Georg Gadamer, “Horizons move along with the moving one” [2]. And finally, as a result of classes with elements of motor activity, our students acquired healthy lifestyle skills that will certainly help them in the future when working in practical healthcare.

#### Conclusions and future prospects.

1. Modules of motor activity in the practical classes of students of medical universities contribute to the fight against physical inactivity of students and the growth of commitment to the studied disciplines.

2. Educational classroom and extracurricular activities in medical universities with the inclusion of elements of physical activity form the skills of a healthy lifestyle for future doctors.

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## INFLUENCE OF PHYSICAL ACTIVITY ON THE MENTAL STATE OF FOREIGN FIRST-YEAR STUDENTS OF BSMU

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**Annotation.** The article considers features of mental condition of first-year students of BSMU engaged in athletics and students of the main group of education. The test results revealed differences in stress tolerance among students during different periods of study activity. Based on the testing of students, the levels of stress are determined according to somatic, emotional and behavioral characteristics.

**Keywords:** university, students, stress, stress resistance, physical culture.

**Purpose:** to determine the influence of physical exertion on the mental state of foreign students BSMU.

**Background:** Adapting to a first-year college of higher education can cause poor academic performance and communication problems. This is most often due to the emergence of a large number of subjects simultaneously in a relatively short time. During the adaptation process, students experience high academic workload. The tension experienced by the body of modern youth against the background of intellectual and emotional loads in the process of studying, often leads to deterioration of their health [1]. Training in medical university requires students to switch from one object to another rather quickly. The nervous system helps to stay focused on one material for a long time. It directly affects the productivity of students' educational activities.

Considering the main problems of freshmen, the most common of them were: fatigue, a large amount of information, the need to take comfortable seats in the audience (to get to the front row), not keeping up with the teachers, problems with nutrition. The least common difficulties were: orientation in the building, use of the library, relations with fellow students. If we look at the central nervous system, we can say that the main type of adaptive reaction of freshmen is increased activation, which is one of the general non-specific adaptive reactions that evolve in response to external average force. This reaction, which lasts for a short time, allows to achieve optimal synchronization of functions of the body, as well as stimulate non-specific resistance of the body to high levels of reactivity, as opposed to stress reaction, which is the response to the strong, extreme stimuli.

Preparation of a person for professional activity begins in the university. At the same time, a person's success in the profession, and in general in life, is largely determined by the degree of formation of a healthy lifestyle. Physical education plays a significant role in the training of future specialists, since one of the main components of a healthy lifestyle is high motor activity [3]. In recent years, due to the high academic workload at the university and home and other reasons, most young people have a deficit in the mode of the day, insufficient motor activity [4].

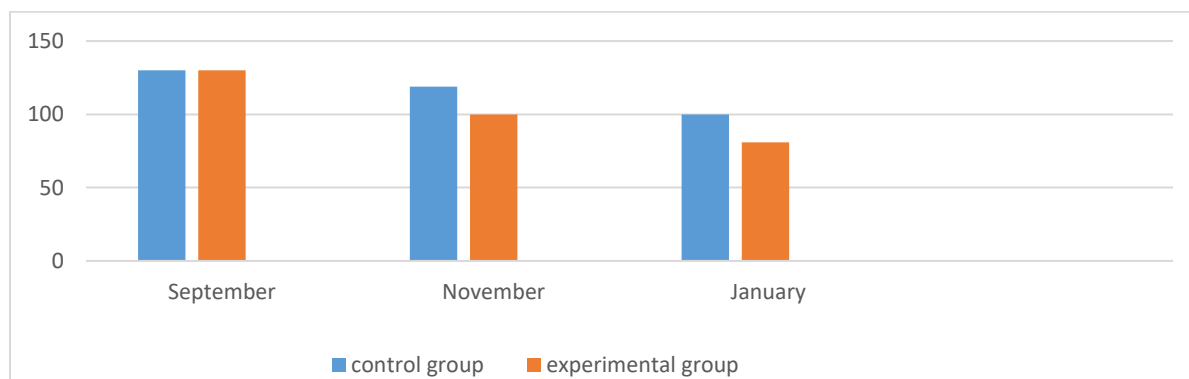
The complexity of the initial stage of training in medical universities lies in the fact that the student is restructuring the whole system of cognitive orientation of the person. New ways of cognitive activity are learned and certain types and forms of interpersonal relationships and relationships are formed. The effectiveness of adaptation of first-year students of BSMU to training in the medical university in the future will actively contribute to the general psychological comfort, personal motivation to training, focus and nature of educational activity at the senior courses, and then at work in medical institutions. In the process of evolutionary development, humans have developed certain behavioral responses to stress. The physiological response, primarily the release of adrenaline into the blood, prepares the person for emergencies. However, in modern, civilized living conditions, the body cannot properly use the energy released by physiological changes. This increases the degree of fatigue and wear. Sports practice allows constructive and purposeful use of this energy,

protecting the body from exhaustion. That is why, from a physiological point of view, sport plays an important role in coping with stress, helping to channel energy into useful channels and safely use it. In addition, at the physiological level: Endorphin production during the stress experience, athletes increase their cortisol-hormone stress level, and there is a lack of endorphins, hormones of joy that are formed during sports; oxygen saturation of organs and tissues; regulation of blood sugar (glucose) levels.

At the same time, on a psychological level during stress, a person can feel disappointment, irritation, guilt, shame, apathy, hopelessness, loneliness. In behavior there is a glitch from the occurrence of unforeseen and unusual circumstances, and the person intuitively tries to return to his usual ways of behavior. At any physical activity, endorphins, «happiness hormones» are produced in the body. Indeed, the production of endorphins positively affects the emotional background, helps to get rid of the depressed mood. This is what relieves depression during physical activity, such as exercise. The most useful exercise performed outdoors: in the street, in the park, in the forest, as when a person is in the sun, he produces serotonin, which also increases the emotional background [4].

**Materials and Methods.** In order to achieve this goal, we tested 40 students of the 1st course of the medical faculty of the Bashkir State Medical University. The study was attended by 20 first-year athletics (pilot group) and 20 first-year students of the core group of physical education (control group). The students were given the PSM-25 test (Lemur-Tessier-Fillion scale), which consists of 25 statements reflecting various vital manifestations of stress. The PSM-25 scale measures the phenomenological structure of stress. The test measures the level of stress based on somatic, emotional and behavioral factors. Comparing this with his condition in the last few days, the student gave approval rating in points (from 1 to 8) depending on the degree of conformity of judgment. The number of points is directly proportional to the level of stress that may have been low, medium or high.

**Research findings.** When analysing stress levels on the PSM-25 scale, the following was found among all students (Fig.1)



**Fig. 1.** Stress level on the PSM-25 scale in students.

According to figure 1, there was a high level of stress (130 points) among all students at the beginning of the school year (September). In November, the stress level decreased by 8% in the control group 119 points, the experimental one 23% to 100 points. In January, the stress level of the test group -100 points, compared to November, decreased by 16%, which corresponds to the average level of stress, and the experimental group -80 points low level of stress, compared to November decreased by 20%.

**Conclusions.** 1. It has been determined that the mental state of students of the first year is subjected to stress, as there is a restructuring of the whole system of cognitive orientations of the person, New ways of cognitive activity are learned and certain types and forms of interpersonal relationships and relationships are formed.

2. It was revealed that students of the first year of the medical faculty of BSMU at the beginning of the academic year (September) have a high level of stress. In November, there was a marked downward trend in stress among students, the experimental group, as opposed

to the control group. In January the stress level in comparison with the beginning of the year has significantly decreased in students, experimental group, and students control group stress level remained average, therefore, regular sports, uninterrupted in exams, help students better organize a healthy lifestyle, maintain an optimal level of stress resistance, prevent fatigue and stress.

**Conclusion** Stress affects a person's mental capacity, physical activity and behavior. Every student should be mindful of the need to maintain mental balance, especially during the session. Exams, tests, practical skills, tests are a reasonable cause for stress, but the further development of events: aggravation of the illness or overcoming the problems that arose, depends on how much a person is able to protect themselves from stress and resist it.

Physical activity during the examination session increases resistance to negative stressors. This is evidenced by the shifts in the physiological and psychomotor functions of students who regularly engage in sports and show a lower level of anxiety on the exam, compared to other students.

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## **FEATURES OF USING INTERNET RESOURCES IN TEACHING RUSSIAN AS A FOREIGN LANGUAGE**

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In this article usage of chat bots, bots in Telegram, the Quizlet application and the Quizizz platform in teaching students Russian as a foreign language is being observed. This paper describes algorithms for working with the proposed resources in the classroom and in the extracurricular time. The authors also describe the benefits of using new technologies to effectively master foreign vocabulary and grammar.

**Key words:** learning a foreign language, Russian as a foreign language, chatbots

The confident and rapid development of technologies strictly affects the presentation and transmission of information in the context of academic education. Increasingly, inventions in the field of artificial intelligence are correlated with the issues of learning, mastering new knowledge. Thus, this allows creating a new cognitive telecommunication environment for acquiring a foreign language and virtual linguistic interaction in the information educational space (Esionova E.Y. Iskusstvennyj intellekt kak alternativnyj resurs dlya izucheniya inostrannogo yazyka: [sayt]. URL: <https://clck.ru/33QVco>). In addition, the forced shift in focus on online education has stimulated teachers to explore the opportunities that the Internet offers us in detail and adapt them to educational goals. Many modern researchers, practitioners (Budnikova A.S., Babenkova O.S. Ispolzovanie chat-botov pri izuchenii inostrannogo

yazyka: [sayt]. URL: <https://clck.ru/33QVgH>), in addition to traditional methods of training, are already actively using and developing new methods. Various media resources, for example, bots and channels on Telegram, applications are integrated very organically into the process of learning foreign languages. The use, in particular, of chat bots will obviously gain great popularity as an additional teaching tool not only in the field of academic education, but also among those who are engaged in language development on their own.

Chat bots are currently quite actively used in business for better interaction with customers, to provide full-time service, to track the transfer of consumer data (for example, they collect customer feedback that allows companies to improve the services they provide). The advantages of chat bots, including economy and ease of use, the ability to solve standard problems without involving a person, also made them a promising help and assistant for teachers and students. While creating chat bots, which are designed to become part of the educational process, the following capabilities may be useful:

- linear material supply;
- answers to students' questions;
- checking of mistakes;
- a reminder of the time of classes (Bikkulova O.S., Ivkina M.I. Chat-bot v metodike

prepodavaniya RKI: [sayt]. URL: <https://clck.ru/rfp2A>).

Onward, we will consider the use of Telegram bots and applications for learning Russian as a foreign language, but it is obvious that the ways of interacting with the proposed resources can be considered universal not only for learning any foreign language, but also for other disciplines. Note that while using game techniques in classes, the teacher needs to build a balanced plan in which working with applications will become an additional way to motivate students.

In our practice, in classes of Russian as a foreign language, the most often used application is Quizlet, which is designed to create cards. Let's describe the principles of working with the application before, during and after the lesson using the example of dictionary cards on the topic "Eda" (URL: <https://quizlet.com/ru/557281354/еда-flash-cards/>). First, a teacher creates a thematic set of words in the application, it is possible to choose any language for translating a word, or create monolinguals without translating into the intermediary language. The application has a function to add images, which, in our opinion, will make the process of learning new vocabulary more efficient for students. At advanced levels, creating such a list of words based on read texts can be an individual task for students. This practice allows a teacher to bring a student out of passive mastery of material into active independent study.

During the lesson, students first master new vocabulary in context, and after that they receive an electronic link to the list of new words. At the first stage, a teacher, together with students, can use the "Cards" function. If there is enough time in class or for homework, students can make sentences with new vocabulary. Another advantage of using Quizlet is the presence of an audio assistant function that automatically voices a word in a foreign language and its translation.

In extracurricular time, writing, listening, and memorizing skills are being trained, as well as in the PC version, students can practice words in the games "Gravity" and "Selection." To test the learned material, a teacher launches a quick game Quizlet Live or "Check," which allows an educator to test the knowledge of students in an exciting way.

In addition, Telegram is a successful platform for consolidating not only new vocabulary, but also grammar. This social network combines several ways to submit information: thematic channels and the function of creating and automatically checking test tasks. One of the examples is the Telegram channel "Tests/Quizzes in Russian language" (URL: <https://t.me/testrki>), the audience numbers 9,455 subscribers. This is an electronic task collection, which is used to prepare for passing exams on evaluation of language proficiency level. Let's consider an example test for elementary level (A1). The test has 46 questions, taking 45 seconds to answer each. If a student answers correctly, then the answer option is highlighted

in green, if the answer is incorrect, the selected option will turn red. If there is no answer within the indicated time, the bot will automatically show the correct option and open the next question. The channel collection presents a large base of tests for higher levels. In addition, the authors of the channel also publish grammatical information for students who study Russian as a foreign language. For example, authors uploaded notes on the difference between the words "пребывать" and "прибывать," on the expression of determinative-substantive relations (as part of the preparation for the TORFL-III exam). The presented theoretical material is systematized and mastered in practice. The authors of the channel create separate folders using the Wordwall resource. These folders contain the most difficult questions for the channel audience - most of the subscribers gave incorrect answers to them. In our opinion, the creation of such Telegram channels and bots can be considered promising not only in exams preparations, but also in studying special vocabulary and grammatical constructions from specialized areas - medicine, computer science, engineering, etc.

Another effective tool in learning foreign languages is the Quizizz resource for creating quizzes and presentations. On this website, a teacher has the opportunity to develop an interactive lesson using the presentation functions. A distinctive feature of the Quizizz is the addition of various tasks to the slides with the necessary material. Questions are performed in quiz mode, and the winner is determined at the end of the presentation lesson. The Quizizz resource is also aimed at schoolchildren, therefore the platform has a gaming interface. If the situation requires it, then game functions (emojis, musical accompaniment, memes) can be disabled by the teacher.

Thus, at present, the use of various applications (Quizlet and Quizizz), as well as chat bots (in particular those which were created on the Telegram social network) is successfully integrated into the learning process as an additional means of acquiring, consolidating and testing the knowledge gained. In addition, these applications are attractive as they save the teacher's time to check tasks and can be reused in different groups of students.

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### **COLLOBATION FORMS OF LEARNING**

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**Abstract.** Traditional education is the most common form of education, which involves close interaction between the teacher and students. In the traditional teaching scheme, the teacher is the only source of knowledge in his field. The combined form of education is the interaction of traditional and distance learning. Distance form of education is the receipt of educational services without visiting an educational institution, with the help of modern in-

formation and educational technologies and telecommunication systems. The subject of the study was a comparative assessment of the assimilation of the material on the discipline "Faculty Surgery" in the traditional, combined and distance format by foreign students. In the future, the full-fledged universal development of distance learning, which in its essence can be both an independent form and in addition to full-time education.

**Keywords:** traditional education, distance learning, blended learning.

**Introduction.** Knowledge is the most important resource in the global economy that can improve the quality of life of the population. The possibility of obtaining a quality education, regardless of external circumstances, is an urgent need for any modern state and society [4]. Due to the epidemiological situation (beginning in 2020) all over the world, it became necessary to conduct classes in a remote format. One preferred form of learning is distance learning supported by e-learning. But creating online courses and managing distance learning is a rather difficult task [6].

**Literature review.** Traditional education is the most common form of education, which involves close interaction between the teacher and students. In the traditional teaching scheme, the teacher is the only source of knowledge in his field. It should be noted that with basic training, the teacher has the opportunity to pay attention to each student, to identify his approximate level of knowledge, to notice the student's mistakes during the lesson and, if necessary, correct them. The combined form of education is the interaction of traditional and distance learning. With this form of learning, the educational process combines both face-to-face learning with the participation of a teacher, it can be practical classes, laboratory work, seminars, and online learning using an electronic educational platform, online applications with conference calls [2]. Distance form of education is the receipt of educational services without visiting an educational institution, with the help of modern information and educational technologies and telecommunication systems, such as ZOOM, SKYPE, online platforms [3].

The model of integration of full-time and distance forms in education is promising in the field of theoretical disciplines. When selecting the content of training, the orientation to the areas of interest of the student will affect the motivational and incentive sphere of his personality and reveal to him in practice the significance of studying a particular subject, as well as the need for continuous improvement of his knowledge and skills [5]. When teaching according to the model of integration of full-time and distance learning, in order to correctly organize the process, it is necessary to analyze what material requires explanations from the teacher and consolidation of the material in full-time format, which requires practical actions, and which can be transferred to distance learning. Since there is not enough time allocated in a full-time lesson to consolidate and develop the acquired knowledge, some aspects and activities can be transferred to distance learning. Considering that each student needs a certain amount of practice, only full-time education will not give the desired result. That is why independent activity with included distance learning, using the resources of the Internet, contributes to the solution of many problems. If necessary, the teacher can be contacted via e-mail, but following a certain established schedule. Teachers, in turn, form the skills of quick feedback by remotely checking the work and providing the necessary information in time. With a competent organization, there is no doubt that in the near future the remote form will not only be used in integration with full-time, but may also replace it in some aspects.

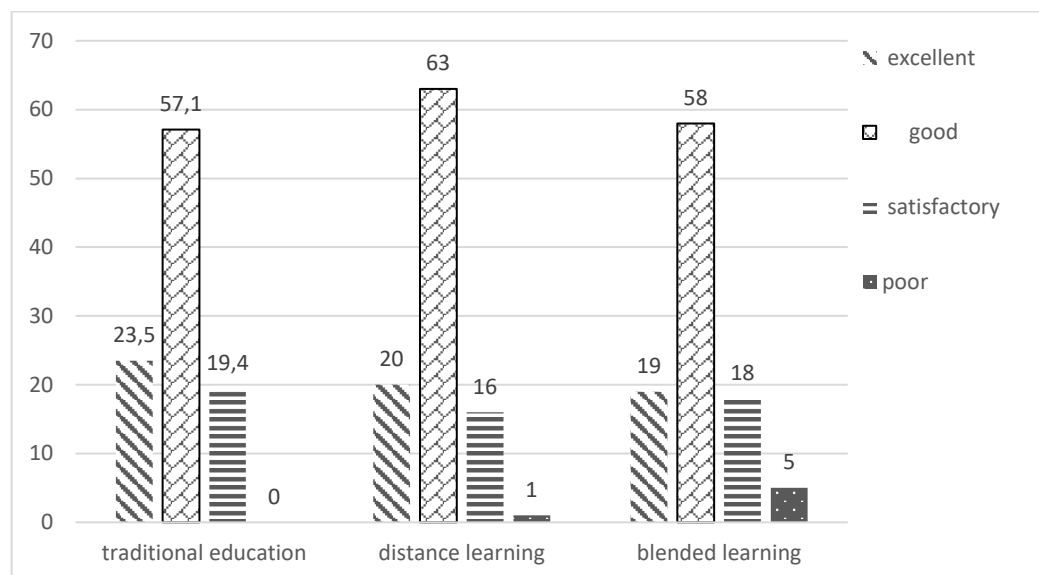
**Methodology.** The study was conducted at the Bashkir State Medical University of the Russian Ministry of Health. The object of the study were foreign students of the 4th year of the specialty "Medicine". The subject of the study was a comparative assessment of the assimilation of material in the discipline "Faculty Surgery" in a traditional, combined and distance format. The analysis was carried out on the basis of the reports of the Department of Faculty Surgery on educational and methodological work for 2018–2022.

The students were divided into three subgroups according to the forms of study in a certain academic year. So in the 2018-2019 academic year there was a full-time education format, in 2019-2020 a mixed format, in 2020-2021 a distance format, in 2021-2022 a mixed



format. Given the development of the COVID-19 pandemic at the beginning of 2019 and its impact on the educational process, it was decided to exclude the 2018-2019 academic year from further analysis. The performance of students was assessed according to the main parameters: admission to the exam, the level of mastering the discipline, academic performance, the quality of knowledge assimilation.

Results. In total, there were 1524 students during the observation period. It was found that the level of mastering the discipline had differences in all three groups (Fig. 1).



**Fig. 1.** The results of the assessment of students' knowledge

When comparing the level of mastering the discipline by students on the exam, it was revealed that students who received an “excellent” rating are higher compared to mixed and distance learning formats. In the distance format, more students passed the exam with a “good” rating. With a mixed format, there is a decrease in the grades "good" and "excellent", there is an appearance of "not satisfactory" results.

Further, based on the data obtained and the analysis performed, the following results can be compiled (Table 1).

Table 1.

**Comparison of traditional, blended and distance learning**

Options	Form of study		
	full-time	mixed	remote
Admission to the exam, %	100	97,7	97,4
Absolute progress, %	97,8	95,5	98
Qualitative progress, %	78,4	77,3	82
Average score	3,9	3,9	3,9

According to the results of the study, it was revealed that attendance and thus admission to the exam was high in the traditional form of education. Absolute performance is comparable with full-time and distance learning and at a fairly high level. Qualitative progress was high in distance learning. The average score of students in the process of mastering the discipline was identical in any form of education.

Since 2015, the department has been conducting an intermediate certification in the discipline "Faculty Surgery" for 4th year students of the Faculty of Medicine. The final grade is calculated according to the rating system. The average score was 3.9.

The average GPA for the 2019–2020 academic year was 4.1. Compared to the previous year, this is slightly higher (last academic year, the average score was 3.9). Also in the

reporting year, there was an increase in quality performance: last year, quality performance was 78.4%, in the reporting year - 87.9%.

The average score in the 2020-2021 academic year, after the intermediate assessment, was 3.9 points. Compared to the previous year, this is slightly lower (last academic year, the average score was 4.1). However, it is worth considering that in 2020 the final grade was set according to the average score without taking into account the intermediate certification. Compared to 2019, the average score is stable at 3.9. In the reporting year, there is a slight decrease in quality performance: last year, quality performance was 87.9%, in the reporting year - 82%.

The average score for the 2021-2022 academic year was 3.9 points. The same average score was recorded last year. In the reporting year, there is a slight decrease in quality performance: last year, quality performance was 82%, in the reporting year - 77.9%.

#### Conclusions and further prospects.

As a result, we can highlight the positive and negative aspects of distance learning. The positive ones include: • Flexible schedule of education (regardless of time factors and location). • Modularity (convenient accumulation of courses in separate blocks, allowing you to independently adjust the program to the success or needs of an individual student). • Financial efficiency (less costly in material terms). • Individualization of learning (the student is able to independently build their own learning plan and complete assignments). • The practice of developing adaptation skills (distance education can provide practice for the student's ability to be independent and self-study, search for information and adapt to unusual learning conditions). • A high degree of actualization of the material (due to the significant use of the Internet, software, computer equipment - all this allows you to regulate and adapt both curricula and the process of obtaining knowledge as quickly as possible, following changes in the external environment). • Availability (distance learning is able to meet the educational needs of many students not only in a particular country, but all over the world) • Openness (a feature of working with the Internet and computer technology - allows you to create an accessible database that includes all the learning materials that it will be possible to view an unlimited time period, and this applies not only to dry text or images, but also to the recording of the lectures themselves and other materials necessary for learning).

Despite the highlighted positive aspects of distance education, there are also negative aspects, which include: • Not suitable for areas of training, an essential aspect of which is communication with people and teamwork (only voice communication is not able to fully compensate for the necessary skills that are developed exclusively with live cooperation). • Problems with the control of progress (it is impossible to guarantee that the work done by the student is done by him independently, since it is impossible to provide a sufficient level of control, the quality of the education received largely depends on the student himself). • The need for computer literacy skills. • Significant learning theorization

From all of the above, we can conclude that there is an absolutely real prospect for the full-fledged universal development of distance learning, but we also need to understand that this is only one of the forms of education, which at the current moment of development of both society and scientific and technological progress is not panacea for any task. But we also note that this form of education has both its own demand among the consumer and its own niche, in which certain areas of education can show, if not increased, then identical indicators in comparison with the classical form of education. Despite many organizational flaws in the distance learning format, students are more optimistic about the prospects for its further development than teachers [5].

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**COMBINATION OF CLASSICAL AND INNOVATIVE METHODS  
IN TEACHING HISTOLOGY TO FOREIGN STUDENTS  
AT THE BASHKIR STATE MEDICAL UNIVERSITY**

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Annotation. Fundamental changes are taking place in modern education, the use of new modern digital technologies is becoming a priority. The use of information and communication technologies makes it possible to develop the practical skills of the student and prepare high-quality specialists in the future. The rapid development of Internet resources entails the need for constant training of teachers and the introduction of modern technologies in the educational process. The analysis of educational activities at the Department of Histology of the Bashkir State Medical University is given. The main problems and ways to optimize the teaching of morphological disciplines to foreign students using modern digital technologies are highlighted.

Key words: teaching, histology, foreign students.

Introduction. Over the past decade, Russian education has become attractive and in demand not only for citizens of the Russian Federation and the Near Abroad, but also for the countries of the Far Abroad. The provision of educational services for foreign citizens, in accordance with the "Concept of the state policy of the Russian Federation in the field of training national personnel for foreign countries in Russian educational institutions", is a priority direction of state policy [1]. Since the 80s of the last century, the share of foreign students studying in the USSR has been constantly increasing, and at present, the share of foreign students in our country is about 3% [2,3]. Bashkir State Medical University is very popular among applicants from Tajikistan, Uzbekistan, Kazakhstan, India, African countries, Syria, Iran, etc. At the moment, in our University study students from 54 countries, a significant proportion of which are far abroad countries. At the same time, an important point for creating more favorable conditions for learning and developing cooperation between Russia and foreign countries is to attract foreign specialists to the education system, namely graduates of Russian universities from among foreign citizens. The educational process at the Department of Histology is carried out in Russian and English. The number of foreign students is growing every year, so the constant improvement of the methodology of teaching morphological disciplines to foreign students, the introduction of innovative methods in the educational process is an urgent task, the solution of which will improve the quality of the educational process, and

also positively affect the educational authority of the Department of Histology and the University as a whole.

Teaching of fundamental disciplines, including histology, takes place in the first years of study. Foreign students of medical and dental faculties study in the first year. Teaching is conducted with the help of an intermediary language (English), which facilitates the integration of students into the educational process. One of the main problems that arises when studying in English is the insufficient level of knowledge of English by foreign students (for example, students from African countries). As a result, the second most important problem is the difficulty of audio perception of new information by students. In this regard, the traditional teaching methods, which require a lot of attention from students, do not always give the result expected by the teacher.

At the Department of Histology of the Bashkir State Medical University, in the daily educational process, we adhere to a number of certain methodological principles when working with foreign students. The first thing we focus on is creating a friendly working atmosphere in the classroom, emphasizing a respectful attitude towards the student. When analyzing a new topic during a classroom lesson, the teacher uses both a tabular fund and a demonstration - analysis of micropreparations using a microscope that has a visualization system through a multimedia projector on a large screen.

The teacher's comparison of structures in a micropreparation with a schematic representation of a tissue or organ in a table improves understanding of the features of a planar preparation. As a result, when displaying the structure of a tissue or organ in a student's drawing, it is possible to achieve a better result than when using only one method. Histology is a visual subject, and in order to achieve the goals set in teaching, the department has created the necessary teaching materials for teaching students, including those from among foreign citizens.

Often a situation arises when a student at the time of the start of training is in his own country, or upon arrival from abroad, is at the stage of paperwork. In such cases, classes are organized in a mixed format. In the absence of the opportunity to attend a lesson at the department with his group, the student receives educational and methodological materials through the platforms of distance learning technologies, and in the video format, the teacher has the opportunity to answer the questions of the student or a group of students and conduct a survey. On the BSMU educational portal, in addition to all the necessary educational materials, a folder with tests for each topic has been created, which makes it easier to pass the test. Online, students are tested and immediately demonstrate the result to the teacher, without having to visit a computer class.

The classical analysis of histological preparations with the allocation of a differential diagnostic feature is combined with modern methods that make the lesson more diverse and exciting. The impressive database of educational slides required for the development of histology is also adapted for students learning with the help of an intermediary language. In the thematic sets, all micropreparations have a translation into English, the staff of the department has developed teaching aids, atlases with microphotographs of their own preparations with their descriptions. The department created a museum of microscopic technology and embryogenesis of animals and humans. This broadens the horizons of students, awakening in them the desire to learn the discipline. Particular attention is paid to micropreparations studied and then obligatory for sketching during the practical lesson.

In 2021, a digital microscopy classroom and a modern morphological laboratory were introduced at the University. During the first classes devoted to the histological technique of making micropreparations, students visit the educational histological laboratory of the department, equipped with all the necessary modern equipment for making micropreparations. Then the students move to the morphological laboratory of the full cycle as part of the Institute of Fundamental Medicine. Here they can get acquainted with the most modern methods of histotechnics (Fig. 1).



**Fig.1.** A visit by foreign students to a modern morphological laboratory with a demonstration of modern methods of histotechnics.

Further, students with teachers study micropreparates in a modern morphological class (Fig. 2). At the same time, a comfortable, modern, favorable environment is created for discussing educational materials among themselves and with the teacher, projecting the image onto a computer monitor.



**Fig.2.** Fragment of a practical lesson on histology in a group of foreign students in the classroom of digital microscopy.

In addition to the educational purpose, the digital morphological class enables digital data processing, which undoubtedly attracts students and creates a basis for performing both fragments and full-fledged scientific research.

Despite the introduction of new educational technologies in the educational process, each lesson ends with an individual oral conversation with the student and analysis of cases. The combination of classical and innovative approaches to teaching contributes to the achievement of the best results.

Thus, at the Department of Histology, all conditions have now been created for comfortable teaching of foreign citizens with the help of an intermediary language. There is an

opportunity to gain full knowledge within the educational program, to master the necessary competencies and practical skills. There remain problems associated with insufficient staffing against the background of an increasing contingent of students, applicants who do not always speak English sufficiently, and some aspects of a social and cultural nature.

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### **THE COMMON PROBLEM OF INTERNATIONAL STUDENTS AND ITS SOLUTION AND UNEXPECTED CHALLENGES OF WORKING WITH FOREIGN TEACHER**

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**Abstract:** The number of overseas students enrolled is rising. This study set out to investigate how overseas students fared in the classroom within the context of a traditional Higher education institutions. Since human actions are irrational by nature, this study employed an interpretive research paradigm to provide light on how each student experiences higher education. In order to comprehend the significance of the students' experiences as expressed in their own words, this study employed a qualitative methodology. This study employed a simple sampling technique to choose international students in Higher education institutions and a semi-structured interviewing process to delve into their experiences with society, mental health, and academics. According to the study, international students struggle with a variety of transition challenges. According to the report, students use tools mostly offered by the institution to address these issues. On the other hand, it is discovered that these issues encourage international students to create solutions to new difficulties. The collected data may be put to use by the university's administration, teachers to identify and address any difficulties that overseas students may have upon commencing their studies. Paying attention to these concerns will result in better assistance for international students.

**Introduction:** Foreign students have gained importance in higher education because they have historically provided educational and financial benefits to their hosting and transferring institutions through their enrollment in foreign institutions.(Altbach & Knight, 2007). Higher education globalization is growing in popularity due to the various needs of the global populace. The importance of intercultural education is evidenced by the fact that more universities are taking on more foreign students each year.(Zafar, Kousar, Rehman, & Rehman, 2019). Students must adhere to the norms and taboos of that culture, as well as satisfy all of the society's expectations. It is critical for them to acclimatize to that culture and retain their performance throughout cross-cultural transfer. Therefore, it is crucial to address the difficulties students have while studying in their host country. (Spencer-Oatey & Xiong, 2006).

International students require support in overcoming obstacles caused by cultural and language barriers and improving their academic performance(McClure, 2007). When students are having difficulties in their classes, they may not be able to identify the root reasons of

their difficulties or know where to turn for assistance(Wu, Garza, & Guzmán, 2015). The best method to deal with it is to ask students, professors, and institutions to work together to establish intercultural understandings and give enough attention to foreign students. Being a part of a new academic system and adjusting to different teaching styles can be difficult for overseas students(Mori, 2000). They were accustomed to a specific educational system and must now adjust to new practices and expectations(Robertson, Line, Jones, & Thomas, 2000)

The difficulties that foreign students have while living in the host country have been the subject of several studies in many distinct nations. For example, a survey revealed that international students in America were struggling with a number of concerns, such as social justice issues, language difficulties, and cultural differences.(Clarke & Braun, 2013). Literature has so underlined that the primary issues are level of English competence and type of accommodations. The aforementioned topics were explored in the context of several nations, but the study is still lacking in this country(Galloway & Jenkins, 2005).

This research, which investigated the issues faced by overseas students, aimed to close this gap. Additionally, this study can assist policymakers in making better choices for international students so that they would be more interested in receiving international education.

**Literature Review:** English language development in higher education has once again received attention, especially with regard to academic writing, because of a increase in foreign students that are studying at English-medium institutions and have different native language. The development of best practices for support delivery via Language and Academic Support programs has received a lot of attention in the discussion. However, combining discipline and language learning has been the key difficulty in recent years. The opinions of professors and students about the techniques they employ to enhance their writing skills have been mostly absent from the discussion. This research discussed this problem. The data shows that academic writing is essentially an for both staff and students, regardless of the discipline. While lecturers emphasize the talents that students must exhibit in their assignments, students are more interested in learning how to acquire these skills. The consequences of creating a comprehensive institutional strategy for merging discipline and language training are examined.(Arkoudis & Tran, 2010)

Security is a nebulous word with many different interpretations. The researcher of this study describes security as a broadly encompassing concept that includes physiological, cultural, and financial aspects pertaining to mobility, ethnic diversity, and human rights. The strategy takes into account the complexity of overseas students' security requirements in the setting of a cutthroat and unstable education industry. Monash University is a great place to investigate the security concerns that occur for overseas students because it is Australia's biggest producer of international education. The experiences of 55 interviewers dealing with Monash foreign students were shared. The information is used to demonstrate how there are intricate cultural variances in how people define security and how being in a foreign country influences how secure pupils feel. Reflections on the effectiveness of and parties involved in addressing students' security requirements result from an understanding of these variables. To ensure that expectations match actual conduct, more staff and student training is required at Monash, as seen by the issues with the personal and cultural practices. The process of educating students about the native population and offering consolation when press reports adversely affect their perception and level of security as foreign students should be included in the training.(Forbes-Mewett & Nyland, 2008)

Academic staff interviews at one university in Australia revealed that foreign students brought a range of cultures with them that motivated academics in their teaching. Academic staff members applauded these potentials but argued that local students remained callous and unaware of the evolving cultural context. Staff members found it challenging to inspire local students to take advantage of the diverse cultures they represented. Potential of these concepts were discussed in relation to some implications for how to advance internationalization more

successfully.(Sawir, 2013). This study was conducted to investigate the challenges faced by the international students along with its solutions.

**Material and Method:** The perspectives of certain overseas students were examined in this study using an qualitative method. Creswell (1998) asserts that the qualitative quality of inquiry is better suited when the subject is complex, and little is known about the phenomenon. As a result, in order to gain a thorough grasp of the issues confronting foreign students, this study only included students who had spent at least one year as international students as participants. The interview was divided into two sections: (1) problems and obstacles participants experienced in various situations (academic, social, and cultural); (2) solutions they employed to overcome these obstacles. Each category's prospective subject is examined, followed by a presentation of probable participant-recommended and applied solutions.

**Results: Academic Barrier: Theme 1 (Interaction with Peers):** In the classroom, there were difficulties with engagement and communication. Students from both collectivist and individualistic cultures encountered these circumstances. For example, one participant stated that interrupting the teacher's speech is deemed unpleasant and ill-mannered in his opinion. Furthermore, international students were concerned about being regarded as international students. The student stated that professors and students must be conscious of the fact that they are international students in order for them to adjust to new life situations (Participant 2).

**Participant 1:** I asked a question by raising my hand. I remained silent, though, until the teacher spotted me. I sat and waited. He did not see me, and the issue in which I wanted to participate was already over. Even though no pupils raised their hands to pose a question, the instructor proceeded to speak to them. Therefore, I just did not share my thoughts on the subject. Nobody was waiting for me. They simply continued to converse.

**Participant 2:** I questioned whether the teacher was aware that I was an overseas student. I wanted to join in the talks but was concerned that he might misinterpret me. He could believe I was a lousy student since I could not articulate myself effectively. The grading system and written assignments might be extremely different at times. The pieces are assessed in a very different way than I am used to. For example, I needed to communicate my views more precisely rather than in an abstract manner. I tried my hardest in class, but I needed more time to be acclimated to it.

**Cultural Barrier: Theme 2 (Language Barrier).** Language is a significant barrier to academic adaption for participants. Many participants claimed that the language was difficult for them, despite having studied it for a few years in their own countries. Many participants must devote more time to enhance their language skills.

**Participant 3:** Many terms while listening are difficult for me to grasp, especially given the speaking tempo and pronunciation. I attend classes at a linguistics institute. Despite this, they are remarkably dissimilar. In my own nation, I used to have excellent language comprehension. I believe it is a streamlined version for ease of comprehension. Moreover, everyone speaks rapidly here. I now get some of the discourse. I sometimes get things wrong. I do not laugh when my peers do.

**Participant 4:** When I go to the bank or call an online firm, my spoken language abilities are insufficient. I seldom ever understand the full dialogue when I call to set up my internet subscription. I must insist that they speak slowly and often repeat themselves. I feel terrible. I cannot comprehend many words when listening, owing to the voice tempo and pronunciation. I attend classes in a language center, as well as in my native country. Nonetheless, they are diametrically opposed. I believe it is a simplified version for ease of comprehension. In addition, folks here talk rapidly. Part of the discourse is now clear to me. I occasionally make mistakes.

**Social Barriers: Theme 3 (Communication)** Both socially and academically, international students experience challenges. People reported that when they attend social gatherings, they encounter with people with different communication styles. People behave very



differently here .In Western culture; it is customary to open gifts right away to express gratitude and joy. Since people in the East are not used to unwrapping presents in front of others, overseas students may struggle because of Western cultural habits. Participants also shared that they occasionally experience social anxiety because of various communication preferences. The majority of individuals discussed their feelings of loneliness and social isolation. Students without friends or family found it particularly challenging. Many of the comments were in reference to the challenges of making friends.

**Participant 5:** I realize that outside of the classroom, I have no other opportunity to interact with my fellow classmates. I made the independent decision to come study here, and I have no family here. We get together a few times a week and do not talk much about our personal lives with my classmates. They have friends and families of their own. Typically, they depart as soon as classes are through.

**Solutions: Language Support** Although the majority of international students demonstrated a command of both written and spoken upon joining the colleges, they have run into certain issues with conversational communication in the academic setting. Students anticipate greater language assistance when studying their primary topic.

**Student Activities.** The pupils made an effort to learn more about the new society and culture in order to deal with these issues. For instance, some participants sought for a roommate who spoke natively in order to advance their language skills. One interviewee became a member of many student organizations. She engages in conversation, discusses her culture, and seeks to strengthen her bonds with the pupils who speaks the native language by fully embracing their way of life. Students take part in events designed to widen their social circle.

**Conclusion:** This qualitative study is being performed to investigate the academic, social, and cultural concerns that overseas students encounter. According to the findings of this survey, foreign students face various challenges when pursuing a higher education here. However, these students come up with unique solutions to these difficulties. As they live away from their parents, they get smarter and make decisions that are more significant. This research will help policy-makers modify certain particular policies for overseas students, enabling them to act quickly and concentrate their efforts in a useful way.

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## FEATURES OF TEACHING THE DISCIPLINE INTERNAL DISEASES IN FOREIGN STUDENTS OF THE FACULTY OF DENTISTRY IN ENGLISH

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**Annotation.** The article analyzes the features of teaching clinical discipline at a medical university. In addition to cognitive abilities, non-cognitive skills of students play an important role in learning and academic performance of students. The leading non-cognitive skills include taxonomically five personality traits: openness, conscientiousness, extroversion, benevolence, emotional stability (neuroticism). Teaching students with the formation of non-cognitive skills using active teaching methods in the form of individual problem cases in the discipline of internal diseases, allows students to improve their academic performance.

**Key words.** Cognitive and non-cognitive skills of students, passive and active pedagogical teaching practices, individual problem cases.

**Introduction.** The modern system of higher medical education is characterized by internationalization and mobility. It is characterized by purposeful integration into the national system of higher medical education in the form of international student and research mobility, internationalization of curricula, teaching processes. These trends are reflected in the work of a higher school teacher, because in addition to professional competencies, he needs to improve the possibilities of language communication. International mobility ensures the growth of the personnel potential of the Republic with the attraction of additional funds for the development of BSMU.

When forming the learning process in the clinical discipline of a medical university for students from near and far abroad, it is necessary to take into account the difficulties of climatic, socio-economic adaptation in a different language environment. The possibilities of using active teaching methods using individual cases, including theoretical and practical practices, allow you to increase the active part in the study of the discipline.

**Literature review.** The Federal State Educational Standard of Basic General Education, approved by the Ministry of Education and Science of the Russian Federation, establishes the need for students to develop emotional intelligence, communication skills, self-control and many other non-cognitive characteristics. According to the Incheon Declaration "Education 2030", adopted at the World Educational Forum in 2015, non-cognitive skills of students began to play an important role as the main focus of the development of education and the learning process, along with cognitive skills [1,2,3]. Non-cognitive skills are defined as a set of thoughts, feelings and behaviors of an individual that can develop during life and form diligence in the educational process. Thus, in addition to academic knowledge, students should

develop behavioral strategies that are necessary for academic success. Non-cognitive skills or soft skills allow the student to persevere in mastering the educational material. Empirically, a positive relationship has been established between soft skills and academic performance of students [2].

The leading non-cognitive skills include taxonomically five personality traits: openness, conscientiousness, extroversion, benevolence, emotional stability (neuroticism). These soft skills are the main personal characteristics that help in the development of cognitive abilities and adaptation in a new academic environment. The literature discusses the influence of such characteristics as growth mindset, self-efficacy, perseverance (grit/perseverance) [Duckworth, 2016], self-control [Schmidt et al., 2020], achievement motivation [Steinmayr et al., 2019], feeling belonging to a single collective [Urvashi, Singh, 2017; Lee, 2020]. While the insufficient socio-economic level of students, the difficulties associated with harsh climatic conditions, the need to adapt to unusual living conditions and communication in a non-English language environment negatively affect the academic performance of students [2,3].

The pedagogical design of a clinical lesson, dominated by passive pedagogical practices, worsens the academic performance of students and increases the development of cheating during control tests. Passive practices include practices focused on memorizing and reproducing students' knowledge received from the teacher. Traditionalism in education, which is characterized by passive teaching practices, can be contrasted with active pedagogical practices aimed at involving students in the process of acquiring knowledge and giving them the opportunity to independently understand the solution of tasks. Such practices include, for example, participation in discussions, application of theoretical concepts to cases, presentation of reports, work at the bedside under the guidance of a teacher. Active pedagogical practices contribute to the formation of mastery and demonstrate a higher effectiveness of the learning process [4].

The purpose of this article is to analyze the features of the organization of training of foreign students of the Faculty of Dentistry at the Department of Internal Diseases.

**The main part.** The teaching of the discipline "internal diseases" for students from foreign countries is carried out by a traditional pedagogical design: lectures with practical clinical classes at the patient's bedside.

The work program for the discipline was created on the basis of the work program of the Federal State Educational Standard for the specialty 31.05.03- Dentistry in the amount of 216 hours and adapted for teaching the discipline in English on the basis of the Clinic of the Bashkir State Medical University. Contact work with students takes place in the form of lectures and practical clinical classes. During practical clinical classes, attention should be paid to the national and cultural characteristics of students. For example, African English-speaking students are characterized by openness and gentleness in communication, but it is not recommended to use a democratic style of communication, special attention should be paid to the development of soft skills discipline and self-organization. While when communicating with English-speaking students from Arab countries of the Middle East, who are characterized by indiscipline, conflict and irritability, in the specifics of pedagogical communication, emphasis should be placed on calmness and delicacy, the development of self-discipline skills with an emphasis on discussions in the learning process.

In addition to the use of passive pedagogical practices, special emphasis is placed on the use of individual problem cases. The structure of the case includes 4 questions: 1) a test question on the 1st form of the test with the choice of one correct answer; 2) a theoretical question on the knowledge of symptoms and syndrome on the topic under study; 3 and 4) laboratory research methods (Fig.)

The creation of individual cases allows you to activate the teaching process, arouses interest among students and better assimilation of the material.

**Case 6**

**Tests:**

1. What is characteristic of nephrotic syndrome?  
 A. facial edema, pleurisy, decreased albumin, proteinuria more than 3 g / day;  
 B. facial edema, proteinuria less than 3 g / day, arterial hypertension, erythrocyturia;  
 C. ascites, enlarged spleen, esophageal varicose veins

2) Signs of normal limits of relative dullness of the heart all but one:  
 A. 1 cm outside of the right edge of the sternum;  
 B. 1.5 cm inside of the left mid-clavicular line;  
 C. 3 intercostals on the left;  
 D. 3 cm outside of the left mid-clavicular line;

**Questions:** What is the difference between parenchymal jaundice and mechanical jaundice? What is the difference between parenchymal jaundice and hemolytic jaundice?

**Determine the norm and pathology in the urine analysis. What disease are you suggesting?**

Urine Examination (OUE) № 267 210			
No. A/C T02023 17		Department: Therapeutic	
FULL NAME: Denisova Valentina		KBSU department	
Medication		Doctor:	
Gender: Female Age (full years): 77		Address:	
Biometrical blood collection time 08:30:00		Payment: OMS	
Analysis	Result	Unit	Remark
Glucose	4.2	mmol/l	Negative
Protein	2.8	g/l	Negative
Color	yellow		
Transparency	opaque		
Acidity	8.0		5.0-7.0
Specific Gravity	1.030		1.015-1.025
Nitrite	Negative		
Ketones	+++		
Urobilinogen	0	mg/dl	open
Bilirubin	0	mg/dl	Negative
Squamous epithelium	2-3		

Analysis	Result	Unit	Norm	Remark
White blood cells (WBC)	3.5	10 <sup>9</sup> /l	4.00-9.00	
Red blood cells (RBC)	3.20	10 <sup>12</sup> /l	3.50-5.00	
Average red blood cell volume (MCV)	45.4	fL	75.0-100.0	
Hematocrit	22.0	%	24.0-48.0	
Hemoglobin	45	g/l	115-155	
average hemoglobin content in red blood cells (MCH)	28.5	pg	24.0-35.0	
the average concentration of hemoglobin in the red blood cell (MCHC)	289	g/l	300-380	
platelets (PLT)	187	10 <sup>9</sup> /l	150-400	
Average platelet volume	9.4	fL	8.0-11.0	
Platelet size distribution width (PDW)	0.19	%	0.10-0.45	
Distribution of red blood cells by volume (RDW)	11.9	%	9.0-20.0	
Percentage of lymphocytes (LYM)	25.0	%	12.0-18.0	
Percentage of granulocytes (GRAN)	16.4	%	20.00-40.00	
Neutrophils	75.8	%	48.0-80.0	
Eosinophils	0	%		
Basophils	2	%		
reticulocytes	1	%		
Stick cells	8	%		
Percentage of medium-sized white blood cells (MIDW)	4.0	%	2.0-11.0	

**Fig.** An example of an individual case on the discipline internal diseases for students of the Faculty of Dentistry.

**Conclusions.** When teaching professional skills to students in the discipline of internal diseases, non-cognitive skills should be formed. The use of individual problem cases allows you to introduce active teaching methods into the pedagogical design of the discipline.

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## ASSESSMENT OF FACTOR “PHYSICAL ACTIVITY” AMONG MEDICAL STUDENTS FROM INDIA

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**Annotation.** The factor “physical activity” is investigated among medical students which studies in medical organization of high education who are from India. Estimated the

features and differences in appearance of this factor in depending on gender, also in frequency of physical exercises, attempts to change the level of physical activity.

Key words. Physical activity, students from India, medical education.

Introduction and literature review. Presenting of the adequate physical activity is the positive factor for saving and improving the health of any ages people, exactly students. Optimal physical activity impacts to immunity positively [2, 3, 5].

The assessment of the physical activity among students is interesting. Besides physical activity of the students is decreased during Coronavirus pandemic [6]. The doctors should be the promoters of healthy lifestyle among patients including adequate physical activity. These skills the future doctors should learn from student period.

The main part (methodology, results). The goal of the work. To estimate the features of the factor “physical activity” among medical students of the Bashkir State medical University who are from India.

The material and methods of research. An anonymous survey was conducted among students of the second year education of state medical university. Interviewed 56 students from India original (32 men and 24 women). Used questionnaire about physical activity from “Questionnaire CINDI for observing for health and investigation of Risk Factors”. Carried out mathematical processing and analysis of the obtained results.

Obtained results and their discussion. Indian students of both gender estimated their physical activity at work (it means students studying) as “basically sedentary. I don’t move a lot” – 37,5% (12 male) and 50% (12 female). Students which answered that “move during education a lot, but don’t lift and carry heavy things” were 62,5% (20 male) and 50% (12 female) accordingly.

During assessment physical activity at leisure time Indian women were more active. So accordingly 33,3% (8 female) answered that they “During leisure time they have physical trainings and sport such as running, gymnastic, swimming, games with ball and other active leisure time”. Indian male students were less active in leisure time – 25,0% (8 male).

The longest duration of physical trainings connected with transferring for road to studying places (go by foot) estimated among Indian male – 50% (32 male). Indian female were 33,3% (8 persons) which marked that they “going by foot on the road to the studying places” more than 45 minutes daily. Among Indian students were not estimated person which told that their duration such physical activity less than 15 minutes a day.

The highest frequency daily physical trainings which cause slight strengthen breathing was among Indian female – 33,3% (8 persons), smallest among Indian male – 12,5% (4 persons). The main part of the students have such physical activity 2-3 times per week – 68,7% (22 Indian male). Less than one time per week such physical activity was among 18,7% (6 Indian male) and 24,9% (6 Indian female). Here our results are consistent with researchers of Pashenko L.G. and Laxina O.M. (2021) which estimated that 78% of students surveyed had such intensive physical activity [4].

Estimated that mostly students tried to increase their physical activity in leisure time during several last months: 62,5% (20 male), 66,6% (16 female). But there were a great number of those who didn’t try to increase their physical activity – 31,2% (10 male) and 25,0% (6 female). Such students differ from the students one of the University from Khazakhstan where attempts to increase their physical activity during leisure time are made 6% only [1]. Gender differences in the physical activity are estimated among students of the Surgut State University also [7].

Conclusions and future perspectives

Estimated the features in physical activity of the medical students from India including the gender.

It is necessary further popularization and making conditions for achievement optimal physical activity for medical students from India.

## FEATURES OF TEACHING BIOLOGY TO FOREIGN STUDENTS OF A MEDICAL UNIVERSITY

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**Keywords:** foreign students; university; biology; medicine.

In the context of the internationalization of education, the actual criterion for the effectiveness of the university is the number of foreign students. It reflects the competitiveness of the education system in the international arena. At present, traditional international relations with the countries of Asia, Africa, and Latin America are expanding. The quality of the educational process is largely determined by the level of adaptation of the student's personality. Foreign students adapt to a new socio-cultural environment, other climatic conditions, a different time zone, a new educational system, a language of communication, and an international composition of study groups.

In the process of teaching biology in higher medical school, as in any other educational institution, various teaching methods have been formed. Generally accepted teaching methods used can be divided into three main groups: verbal, visual and practical.

In a multinational environment of foreign students, the verbal method of teaching must be supported by the use of an intermediary language, the knowledge of which is required to be perfect or at a conversational level with knowledge of special terminology. In order to minimize difficulties and for the implementation of educational activities, the teachers of the Department of Biology developed a set of educational and methodological materials in English. In the course of the educational process, the constant updating of test tasks and teaching aids, the processing of lectures, and the improvement of the language skills of teachers are carried out.

At all stages of the educational process, a special place in the teaching of biology is given to visual aids. The bulk of the teachers of the department during lectures and practical classes use multimedia presentations, demonstration films, as well as modern models, tables, diagrams. These methods have gained particular importance during the COVID-19 pandemic, when training sessions have been transferred to a distance learning format.

Observation and knowledge of biological phenomena and processes carried out under the guidance of a biology teacher during practical classes are the main source of knowledge acquired by foreign students of a medical university. To keep the attention of students during class, it is effective to give practical examples that always arouse interest among students.

The process of working with foreign students is accompanied by problematic moments. The organizational side of their education suffers, in particular, foreign students tend to be late for lectures and practical classes. Sometimes they do not consider it necessary to do their homework or visit the library in order to obtain the necessary study materials. All this causes unnecessary irritation and complication of the educational process.

Most of the foreign students, coming to study in Russia, do not immediately successfully cope with acclimatization. Since their homeland is dominated by a warm climate. In addition, many foreign students are not accustomed to wearing warm clothes and shoes, as a result of which resistance to colds decreases. This is especially true for students in the preparatory department and the first year of study, where the discipline "Biology" is taught.

Another negative point is associated with the habit of a number of students to constantly challenge their assessment in the direction of overestimating the level of their knowledge and provoking conflict situations. Perhaps this behavior is associated with the peculiarities of the mentality, upbringing. One of the possible ways to resolve the issue in such situations could be the use of computer testing as the first stage in assessing the initial and final level of students' knowledge. Thus, the method of communication is important, in which the line between subordination and communication on an equal footing will not be violated.

The methodological support of teaching foreign students requires special attention. Compared with foreign universities, there are certain differences in the planning and assessment of students' competencies. We do not have enough special educational literature in English that would be adapted to our curricula. Comprehension problems weaken students' interest in learning and their motivation to acquire knowledge. The other side of the issue is the preparation of our own educational, methodological and assessment materials in English. Unfortunately, this often becomes a problem for teachers and their departments.

The countries from which students came to our university are located in different climatic zones of the planet. Therefore, the attention of students is focused on medical and environmental problems. The section of biology "Medical parasitology" includes topics on ecology, protozoology, helminthology, arachnoentomology. To strengthen the motivation to learn these topics, original situational tasks are offered in the lessons. When studying natural focal diseases, the teacher discusses in more detail the problems specific to the regions from which the students came. Particular attention is drawn to the epidemiological situation in the world, since the situation with such diseases is constantly changing due to mass migration of the population, changing climatic conditions. When studying this section of biology, it is very important for foreign students to use educational films that clearly demonstrate the life cycles of parasites, the area of distribution of the disease.

Also, when studying human hereditary diseases, regional features of their prevalence, diagnosis, screening, and prevention are taken into account. The organization of medical-genetic care in their countries is discussed, it is proposed to perform independent work in the form of writing essays on this topic.

The possibility of a permanent presence of students in the general information field is organized through the information and educational environment of the Bashkir State Medical University. On the educational portal of the university, teachers of the department posted materials developed for each specialty of the electronic educational and methodological complex "Biology" in English. Through the system of personal accounts, foreign students have the opportunity to get acquainted with them and study them.

Thus, the presence of deep theoretical knowledge and practical training in biology among students of a foreign faculty is the foundation for studying and understanding clinical disciplines in senior years.

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### **MODERN ASSESSMENT OF THE HIPPOCRATIC OATH AND MEDICAL ETHICS IN THE ASPECT OF THE INTERNATIONALIZATION OF MEDICAL EDUCATION**

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**Summary.** The article discusses ethical principles in the protection of human health, the basic principles of the Hippocratic oath, their modern assessment, the growing importance

of the ethical training for a modern physician in the aspect of internationalization and unification of medical education, as well as the increasing role of digitalization in modern society.

**Keywords.** Ethical principles in health care, the Hippocratic oath, medical education, globalization, digitalization of public life.

**Introduction:** Ethical principles in the protection of human health not only do not lose their value but are becoming more and more relevant. Morality seeks to consolidate people's concern for their health as the highest value in the form of moral principles, norms, commandments. For medical workers, the moral code of the profession for many centuries has been enshrined in the oath of the ancient Greek physician and thinker Hippocrates. He left a description and methods of treatment of a number of human diseases, as well as an idea of the high moral character and model of the ethical behavior of a doctor. All graduates of medical universities take an oath, which in Russia in the 21st century is called the doctor's oath. How does this oath correlate with the principles proposed by the outstanding thinker of antiquity?

**Literature review:** The main theses of the oath retain their significance to this day. They contribute to the formation of a doctor's "humane" attitude towards the patient, high responsibility both for his decisions and for the interactions with the patient since the patient's mood and state of mind largely depend on the activities of a medical worker. However, the initial settings of this document, of course, have changed due to the serious transformation of the cultural and historical situation, the globalization of modern life.

In addition to the works of Hippocrates, the following are of historical importance for medical ethics: the code of laws of Hammurabi (1792 - 1750 BC), the works of Socrates, Aristotle's Nicomachean Ethics, the main postulates of monotheistic religions (Buddhism, Christianity, Islam); in a later period, "Medical Ethics" by the English scientist T. Percival, in Russia - the works of M. Ya. Mudrov, the ethical theory of I. Kant, the works of the English representative of utilitarianism I. Bentham. Since the 20th century, the development of medical ethics has proceeded within the framework of bioethics, the founder of which is considered to be the American physician W. R. Potter. The coronavirus pandemic had a significant impact on modern life, which affected the whole world, claimed a huge number of human lives and pushed the education system in general and medical education, and the system of medical care in particular, to transform towards digitalization.

**Main part** Of course, the main things, within the framework of this oath, are to help the patient and the priority of interests and benefit for the patient. You can also note the careful attitude to teachers and mentors in the profession, to human life and health, the requirement to comply with medical confidentiality.

However, within the framework of this article, we would like to note the following aspects, which in the vast majority have changed their relevance: "... I will not give any woman an abortion pessary ...". Attitudes towards abortion in our time have changed due to significant social transformations, namely: the technologization and technologization of social reality, the result of which is a gender revolution, significant changes in women's attitudes towards their own lives, fate, and their bodies. And this is certainly correct and corresponds to the realities of modern life, according to the authors of this article. Women around the world stand up for their rights, including the right to control their own bodies.

Abortions are prohibited in a few countries of the world, such as: El Salvador, Nicaragua, Chile, Malta, Philippines. There are countries where abortion is allowed if the woman was a victim of rape, and if there are medical indications or a threat to the woman's health. The trend in the development of society is the expansion of human rights to dispose of their lives, although in this matter it is necessary to be extremely careful.

The next thesis is closely related to the previous one and is also due to a change in a person's attitude to his own life. "I will not give anyone a lethal agent asked of me and will not show the way for such a plan ...". We are talking about the problem of euthanasia.

Euthanasia is the conscious termination of the life of a person who has a serious, incurable disease, and it is allowed in modern conditions in many developed countries of the



world. However, according to the deep conviction of the authors of the article, the position of the Hippocratic oath in the original interpretation should be preserved in our country, since human life is valuable, unique, and unrepeatable.

**Conclusions:** The modern world is dynamic, changes are inevitable in social life, and in health care, and in moral and ethical guidelines, however, the importance of the ethical training of a modern physician is growing and acquiring an international character.

We started the research which was organized by one of the authors (ALR). It is an Internet-based survey about moral and ethical principles. It is planned to be conducted in Russia and Uzbekistan by students from different countries in two languages (Russian and English). We'll invite as participants medical and non-medical students, medical doctors, and laypersons. The questionnaire will be taken from authorized sources (published papers), some questions will be added by us. At the moment students from Russia, Uzbekistan and Nigeria volunteered to do this study. The preliminary idea were presented at the international students conference, organized by Bashkir State Medical University on January 14, 2023 in hybrid format. We continue the study and will share the results soon.

These problems become more and more relevant, first of all, in connection with socio-economic upheavals, the globalization of modern life, man-made disasters, political and other conflicts. They should be discussed during the whole course of education at the medical schools at every department, both teaching basic disciplines, but especially at the departments teaching clinical disciplines and dealing with real patients of different ages, beginning with the newborns.

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### **EXPERIENCE OF TEACHING FOREIGN STUDENTS AT WEST KAZAKHSTAN MARAT OSPANOV MEDICAL UNIVERSITY**

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**Summary.** The article presents the experience of teaching foreign students at West Kazakhstan Marat Ospanov Medical University, the adaptation of foreign students from India in Kazakhstan.

**Key words:** adaptation, English, Kazakh, Russian language, educational process.

**Introduction.** English as an instrument of education in schools around the world has become a new trend, especially in non-English speaking countries. The international ranking of any university largely depends on one of the most important indicators - the number of foreign students. Foreign students contribute to strengthening existing and creating new international relations of the university. Today, education is not possible outside of civilizations, without a single educational space, integration of national educational programs and strategies in the context of universal values. Education abroad is becoming a vital necessity for many young people today. Students have the opportunity for additional socialization in the form of developing skills for interacting with an unfamiliar surrounding world, abilities for intercultural communication. This contributes to the development of dialogue and tolerance in society. One of the factors determining the effectiveness of the process of teaching a foreign stu-

dent at the university is the successful rapid adaptation of the applicant to new conditions. Different languages have different cultures, and different cultures have different habits and characteristics. English culture has its own distinctive uniqueness and nationality, which is a typical symbol of national differences. The most common in pedagogy and psychology is the definition of "adaptation" as a process of a student adaptation, including a foreign one, to the conditions of her studies at the university, to a new organization of life and intellectual activity socio-psychological, i.e. difficulties caused by the psychological characteristics of the individual, problems of the emotional sphere and communication in the new socio-cultural space, getting used to the climate and kitchen.

Method of examination and results: West Kazakhstan Marat Ospanov Medical University educates foreign students, in particular students from India. Education is conducted in English starting from the 1st year. The creative approach of the teacher is an indispensable condition for the development of a creative approach in studying academic disciplines in English. At the department of General Medical Practice No. 1, there are 96 foreign students of the 5th year, who came from India. At the Department of General Medical Practice No. 1, the discipline "Fundamentals of General Medical Practice" is taught. Teachers, conducting practical classes and lectures in English, use interactive and innovative teaching methods, electronic resources, and a simulation center for practical skills. According to all foreign students, who were responders of our questionnaire, upon arrival to Kazakhstan, the most difficult for them was to get used to the climatic conditions. The climate in Kazakhstan and the climate of India are very different. A half (50%) of the respondents could not get used to living conditions in the dormitory. The need to communicate in everyday life in Kazakh or Russian was noted by all the respondents. One fifth (20.8% ) of the 5th year medical students from India spoke enough Russian, which gives them the opportunity to communicate in everyday life. By the 5th year, many students know some words in Kazakh and Russian, more often words of greeting and gratitude. Next come the difficulties of getting used to a different way of life (68.4%), the attitude of others (23.1%), the absence of relatives (83.3%). They could not adapt to traditional local and European cuisine. All students noted that they adapted to the local and European cuisine just close to the end of the first year of study. Since teaching is conducted in English from the 1st year both students and teachers have no problems in studying the discipline and in conducting the educational process respectively. Adaptation to a complex of factors typical for higher education, as well as to new cultural and climatic conditions, is a complex psychophysiological process, which is accompanied by a significant stress on all functional systems of the body. But the main problem that a foreign student faces is the problem of communicating in a foreign language. To relieve the stress of cultural and speech adaptation of students to living conditions in Kazakhstan on the part of the dean's office of foreign students, the faculty of the department, on the basis of which the study of various disciplines takes place, that is, throughout the entire period of study they contribute and help in communication and behavior in living conditions in dormitory, when moving around the city and opens the way to understanding the national characteristics of the mentality. At the same time, students get acquainted with the features of the culture and mentality, where they live for the period of study. Thus, by the 5th year, foreign students develop communication skills in a new language environment, meeting basic communication needs when in contact with native speakers in the social, cultural, and educational fields. The adaptation of foreign students to the educational space is a dynamic and multifaceted process, during which the student's personality is integrated into a new educational environment, into a system of requirements for knowledge control, into a new cultural environment for her, into a new team, and for many of them into new living conditions, which contributes to their intellectual, personal, and professional development and self-realization. The introduction of innovative methods into the educational process in the educational process allows to better master the educational material, as well as conducting educational work among foreign students, allows foreign students to show

their personal qualities, creates a comfortable environment for international cooperation in the student team.

We plan to organize a similar assessment at Bashkir State Medical University and invite to participate as responders students from different countries, including Asian and African, and to compare the results. West Kazakhstan Marat Ospanov Medical University and Bashkir State Medical University are academic partners for many years, we conduct the programs of academic mobility, do academic visits and continue cooperation in different fields. The new study will be an essential one since the problems mentioned by students from India studying in Aktobe look similar to the problems of students studying in Ufa.

Conclusion: teaching foreign students provides adaptation to a new educational environment, cultural environment, which contributes to their intellectual, personal, and professional development and self-realization.

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### **BIOCHEMISTRY OLYMPIAD FOR FOREIGN STUDENTS AS A FACTOR OF IMPROVING THE QUALITY OF EDUCATION**

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The article presents the experience of organizing and conducting the biochemistry Olympiad for foreign students at a medical university. The features and importance of the Olympiad for foreign students in the formation of general professional and professional competencies, as well as for the adaptation of students to the new conditions of life and learning are shown.

Keywords: Biochemistry Olympiad, foreign students, general professional and professional competencies.

The process of preparing medical students for their future professional activities is most effective if they are involved in various forms of educational and research activities. One of the forms of effective extracurricular work of students is a subject Olympiad.

The subject Olympiad is not just a competition of students in performing certain tasks, it is a pedagogical event designed to improve the educational process and enhance the interest of students in a particular academic discipline. The Olympiad should encourage students to work independently with additional literature, reference books. As one of the forms of educational activity it has a positive impact on the development of personal characteristics of students. Participating in the Olympiads, they strive for self-development and self-actualization, they form skills of planning and self-control [3].

At the Department of Biological Chemistry of Federal State Budgetary Educational Institution of Higher Education «Bashkir State Medical University» of the Ministry of Healthcare of Russian Federation the organization of Olympiads of different levels (universi-

ty, interregional and all-Russian) in biochemistry among medical students has become an annual tradition. The Olympiad in biochemistry is an event held with the aim of improving the quality of education of medical students, exchange of experience and knowledge between them [2].

The main aims of the Olympiad are popularization of knowledge in the field of biological chemistry and increasing interest in the fundamental disciplines of medical education, modern trends in the development of biological chemistry and related disciplines, such as molecular biology, physical and chemical biology, genomics, proteomics, molecular pharmacology, biotechnology, etc.

Objectives of the Olympiad:

- promotion of knowledge and formation of skills in the use of basic sciences, in particular biochemistry, in scientific and practical medical activities;
- assessment of knowledge of biological chemistry, its significance and possibilities of its use in the development of modern medicine [2].

The beginning of teaching biochemistry to students from foreign countries led to the organization of biochemistry Olympiads in English for foreign students at the Department. It was caused by the annually growing number of international students, their interest in the Olympiad movement realized at the Department, their desire to show their knowledge, abilities, skills and creative potential in competitive activities, and undoubtedly, the need to implement the objectives and achieve the goal of the Biochemistry Olympiad among this contingent of students.

The formation of the Olympiad movement at the Department had certain stages. At first, there was a classical competition for the performance of tasks within the curriculum of the subject of biochemistry, studied by students of medical and pediatric faculties in the medical school. The assignments in this competition are done in writing. The works are coded according to the mottos chosen by the students and only after checking the works, ranking according to the points of the participants, the envelopes signed with the mottos are opened and the names of the students are revealed.

With the beginning of organization of Interregional Olympiads among students of medical and pediatric faculties of educational institutions of higher medical education of Ural, Western Siberia and Volga region and then All-Russian Olympiads among students of medical and classical universities 2 more contests were included into the Olympiad program. Contest 2 "The best situational task": participants should present their own situational tasks (problem) with answers and an index of used literature. The situational task should be written in the text editor Microsoft Word and be accompanied by multimedia presentation in Microsoft Office PowerPoint 2003. Contest 3 "The best essay": the participants of the competition present an essay on a topical problem of biochemistry in the volume of 3-5 pages. A presentation is prepared for the competition program. The essay should express the author's individual impressions and considerations on a particular issue or subject. The title of the essay reflects the problem statement. The content of the essay includes an introduction, the main part, and a conclusion. The introduction usually gives a brief answer to the question posed; it should outline the composition of the answer. The main part should include 2-4 arguments, which logically develop the author's thoughts with the help of examples, show understanding, and the ability to construct the proofs in an unconventional way. In biochemistry it is necessary to use formulas, schemes, drawings. In the conclusion it is possible to show the connection of the considered question with others or its importance for medicine, to express conjectures, doubts [2].

It should be taken into account that for international students, studying at a Russian university involves difficulties in adapting to unfamiliar living and studying conditions [1]. Therefore, at the first stages of the development of the Olympiad movement among foreign students, it was decided to test the classical form of the Olympiad in the form of a competition of tasks. The tasks were prepared, including theoretical questions on knowledge of the sub-

ject, and creative situational tasks, having clinical and diagnostic significance, and therefore, related to the future professional activity of the students. The participants receive a form with 10 tasks which are the same for all participants. The following is an example of tasks of the Biochemistry Olympiad of BSMU for foreign students 2022 (Table 1).

Table 1

<b>Tasks of the Biochemistry Olympiad of BSMU for foreign students 2022</b>	
BIOCHEMISTRY OLYMPIAD-2022	
	Task
	Radioactive glucose labeled by carbon isotope $^{14}\text{C}$ in positions 3 and 4 is incubated with cell-free liver tissue homogenate. In which positions the newly forming lactate will contain carbon $^{14}\text{C}$ ?
	Name the tissues or organs of human body that most actively carry out the following reactions: <ul style="list-style-type: none"> <li>a. 7-dehydrocholesterol <math>\rightarrow</math> cholecalciferol</li> <li>b. 25-hydroxycholecalciferol <math>\rightarrow</math> <math>1,25(\text{OH})_2\text{D}_3</math></li> <li>c. Cholesterol <math>\rightarrow</math> cholic acid</li> <li>d. Cholic acid <math>\rightarrow</math> lithocholic acid</li> <li>e. Acetyl-CoA <math>\rightarrow</math> <math>\beta</math>-hydroxybutyrate</li> <li>f. Testosterone <math>\rightarrow</math> estradiol</li> <li>g. Cholesterol <math>\rightarrow</math> aldosterone</li> <li>h. Proopiomelanocortin <math>\rightarrow</math> ACTH (adrenocorticotrophic hormone)</li> <li>i. Acetoacetate <math>\rightarrow</math> <math>\text{CO}_2</math></li> <li>j. Guanidinoacetate <math>\rightarrow</math> creatine</li> <li>k. Glycerol <math>\rightarrow</math> glucose</li> <li>l. Synthesis of erythropoietin</li> <li>m. Tyrosine <math>\rightarrow</math> dopachrome</li> <li>n. Tyrosine <math>\rightarrow</math> monoiodotyrosine</li> <li>o. Tryptophan <math>\rightarrow</math> melatonin</li> </ul>
	A 67-years-old man presented to the emergency department with a one-week history of angina and shortness of breath. He complained that his face and extremities had a «blue color». His medical history included chronic stable angina treated with nitroglycerin. Blood obtained for analysis was chocolate-colored. What is the most likely diagnosis?
	A patient who is scheduled for abdominal surgery in two weeks, was prescribed a course of vitamin K. What is the purpose of the vitamin administration? Describe the molecular mechanism of vitamin K action.
	In long-term exercises the major energy fuel used by skeletal muscles are fatty acids. Compare efficiency of ATP output in oxidation of 1 mole of tripalmitate (tripalmitoyl glycerol) and aerobic oxidation of 1 mole of glucose.
	A 70-years-old man was admitted to the emergency room with a 12-hour history of chest pain. Preliminary diagnosis is myocardial infarction. What lab tests can support the diagnosis?
	Define $\text{P}_i/\text{O}$ coefficient if isocitrate is added to isolated mitochondria as a substrate of respiration. Under what conditions will the value of the coefficient decrease?
	Concerned parents brought a 5-year-old boy to the doctor. Physical examination revealed loose skin, hypermobile joints and vascular problems. Which molecular defects can cause the described symptoms?
	A teenager, concerning about his weight, attempts to maintain a fat-free diet for a period of several weeks. What types of lipids to be the most deficient in his ability to synthesize?
0	Patient's urine starts to darken when left standing. What compound can cause darkening of urine? In what disease it can be observed?

As we can see from the set of tasks, only tasks 1, 2, 5 and 7 are theoretical, and task 2 is designed to evaluate the knowledge of different sections of biochemistry; most tasks (3, 4, 6, 8, 9, 10) describe a clinical situation, to solve which knowledge of biochemistry and its connection with other medical disciplines are used, that allows to evaluate fully the level of general professional and professional competencies, formed in the process of studying biochemistry.

Thus, for example, when teaching biochemistry to students studying in specialty 31.05.01 General Medicine the general professional competence GPC-5 (Ability to evaluate morphofunctional and physiological states and pathological processes in the human body to solve professional problems) and the professional competence PC-5 (Ability to collect and analyze the patient's complaints, his history, the results of the examination, laboratory, instrumental, pathological-anatomical and other studies in order to recognize the state or establish the presence or absence of the disease) are partially formed.

This form of Olympiad for foreign students has been implemented for several years and has shown good results. The participants of the Olympiad presented a high level of theoretical knowledge in biochemistry and the ability to apply it in solving situational problems. Participation in the Olympiad makes a significant contribution to the formation of the most important universal, general professional and professional competencies in the students, promotes the interest in the fundamental disciplines as a fundamental basis for the study of clinical medicine, as well as the development of their creative potential. Among other things, the Olympiads among foreign students contribute to their adaptation, intercultural and interpersonal communication in the new environment.

The results of the Olympiads, as well as the annual participation of foreign students in the conference of students and young scientists with research papers in the field of biochemistry under the guidance of faculty members of the Department create the possibility to implement in the near future creative contests "The best situational task" and "The best essay" in the framework of the Olympiad among foreign students at the Department of Biological Chemistry of BSMU.

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### **REALIZATION OF COMPETENCES AT THE PRESENT STAGE OF TEACHING NORMAL PHYSIOLOGY TO FOREIGN STUDENTS**

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**Abstract:** In connection with the need for qualitative mastering of competence by foreign students, at the Department of Normal Physiology Bashkir State Medical University, it

was conducted a survey of second-year students studying in the mediator language. The findings showed high levels of motivation to study and learning practical skills.

Keywords: normal physiology department, competences, foreign students.

One of the important tasks of health care is to improve the quality of training of medical personnel. In this regard, great changes are taking place in all areas of teaching in medical universities. Teaching at the departments is changing in the sense that, along with a deep mastery of the theoretical foundations, the task is to acquire earlier and better competencies that bring theoretical knowledge closer to practical skills in various medical specialties.

In order to implement these competencies, teachers of medical universities are required not only to provide solid theoretical knowledge, but also to help students' master practical techniques that are widely used in the daily practice of a doctor [1].

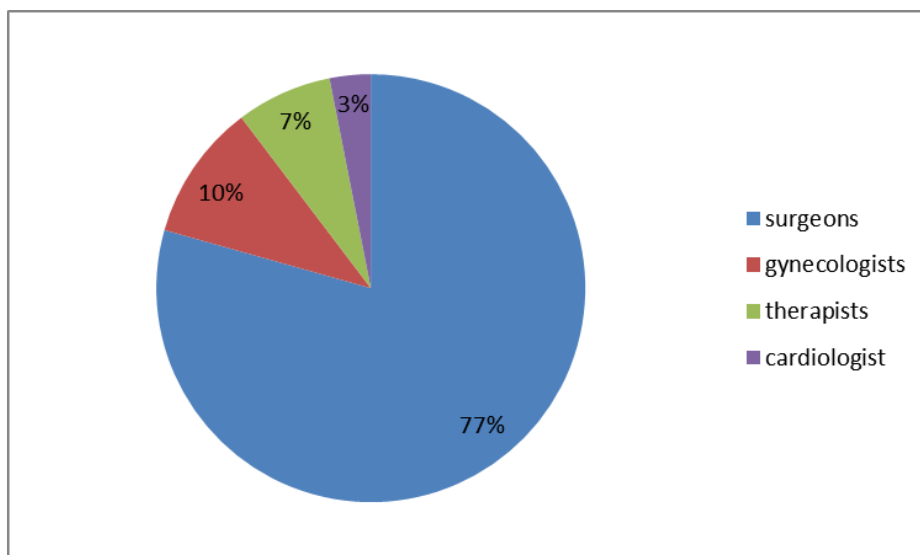
In recent years, the percentage of students studying in the intermediary language English has significantly increased, which requires a high level of training of the teaching staff, as well as sufficient equipment of theoretical departments in order to master the competencies and practical skills of this category of students. Teaching to foreign citizens in English, who arrived from various foreign countries such as India, Egypt, Saudi Arabia, Yemen, Iraq and others, has been taught at the Department of Normal Physiology since 2006, for 17 years. During this time, sufficient experience has already been accumulated in working with foreign students [2, 3].

The Department of Normal Physiology is equipped with all the main instruments necessary for diagnosing and studying the functions of the main body systems. The educational and research student laboratory has modern equipment, including a hemoanalyzer that allows you to conduct a detailed blood test with the interpretation of all data, an ECG apparatus, spirometers, a spirograph, an electroencephalograph, Forster perimeters and a number of other devices necessary for conducting practical classes on all branches of physiology [4].

The teachers of the department conduct experiments on animals (within the framework of a humane attitude towards animals), which allow to clearly demonstrate the physiological functions of some body functions. Students in practical classes have the opportunity to work with equipment, measure their physiological parameters, participate in ongoing experiments and master the necessary techniques.

For successful assimilation of the course of physiology by foreign students, in working with them, it is necessary to take into account their mentality, peculiarities of culture, habits, find a common language and motivate them to obtain the desired result.

Students from India initially have a good level of preparation, knowledge of the language and, in this regard, academic performance, unlike many students from Arab countries, which may be due to difficulties in knowing English. These observations are in line with the data of colleagues from other universities. To form a stable motivation for learning and prospects for the effectiveness of training, as well as to evaluate the work being done, we carried out an anonymous survey of English-speaking students. Its results are presented below. 60 foreign students took part in the survey. The survey data are presented in the diagram (Fig. 1). 77% of students wished to become surgeons in the future, 10% - gynecologists, 7% - therapists, 3% - cardiologists.



**Fig.1.** Profession planned for the future.

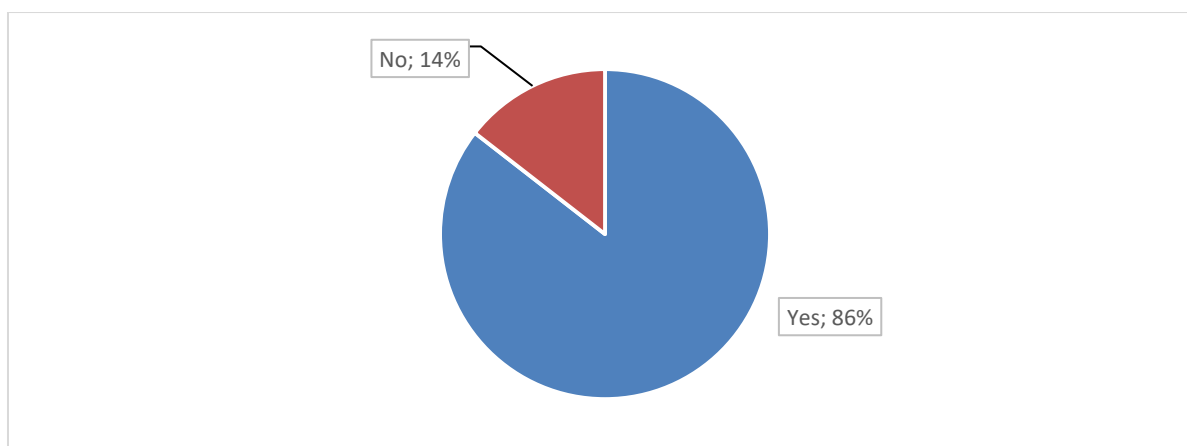
The next item of the survey concerned the attitude of the respondents to the availability and quality of the equipment used during classes, as well as their opinion on the level of teaching in English, including language, communicative and subject competence. Grades were given on a five-point scale. The survey results are shown in Table 1.

Table 1

Assessment of the level of teaching in the intermediary language				
Parameter	Score in %			
Satisfaction in points:	2	3	4	5
Equipment for practical classes	0	17	50	33
Language competence	0	13	47	40
Communicative competence	0	27	30	43
Subject competence	0	13	43	44

Most of the respondents rated "4" and "5" for language proficiency and methods of teaching the subject, as well as for the communication skills of the department's teachers.

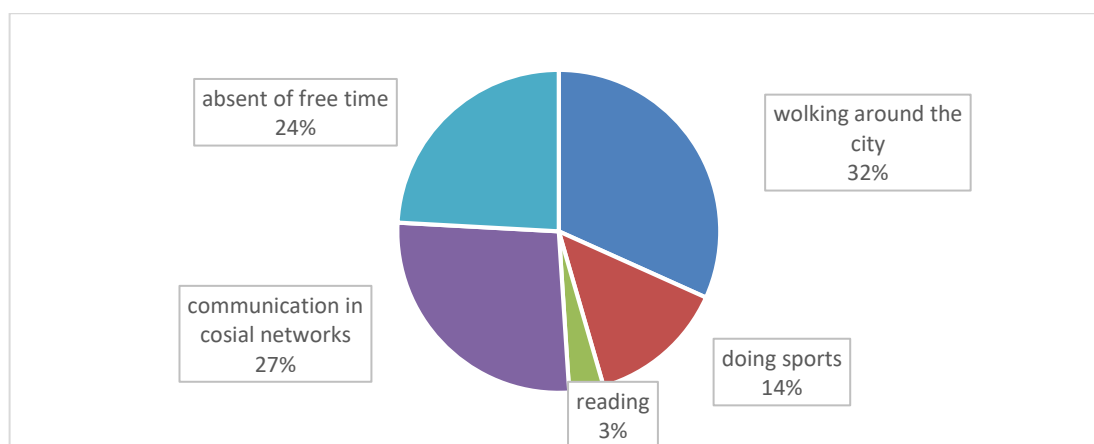
The next item of the survey concerned the social activity of students. The diagram below (Fig. 2) shows the percentage of students who lead an active student life. The majority of students - 86% of all respondents take part in the life of the university with pleasure.



**Fig. 2.** Participation in university events

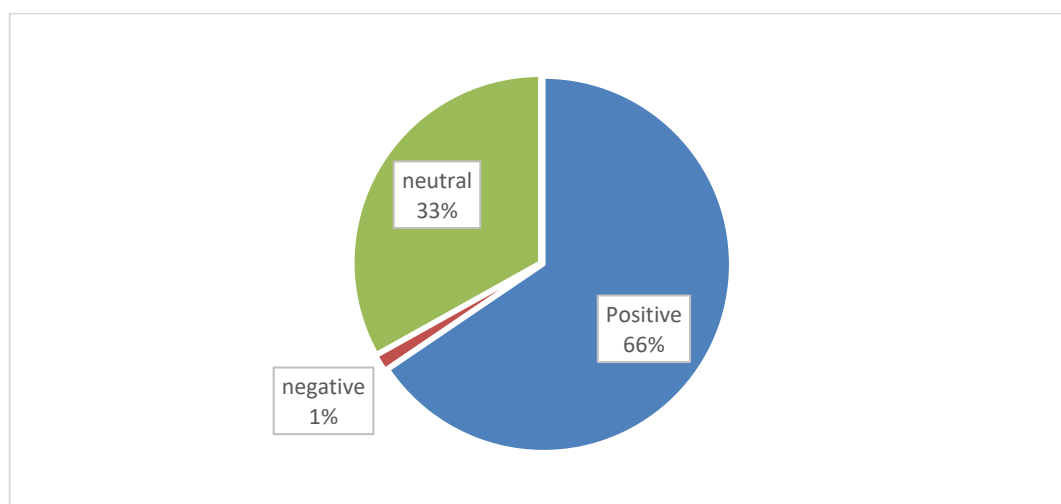
The results of the survey regarding the availability of free time and its distribution are presented in the diagram below (Fig. 3).





**Fig. 3.** Types of activities in your free time from study

As can be seen from Figure 3, most foreigners have adapted to the conditions of their stay and have found something to their liking. A quarter of the respondents spend most of their time preparing for classes, which indicates a high motivation to study. This is confirmed by the following diagram (Fig. 4), which shows a high percentage of positive relationships between students and teachers.



**Fig. 4.** Diagram of relationships with university teachers

**Conclusion.** Thus, the conducted studies showed a high level of student satisfaction with the quality of the organization as an educational process and communication with the teaching staff of the Department of Normal Physiology, as well as leisure activities, which is also important to ensure stable motivation for learning and achieve the best results for further use in the intended professional activity [5].

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**METHODOLOGY OF PHYSICAL EDUCATION FOREIGN STUDENTS  
TO DEVELOP THEIR READINESS TO COMPLY WITH NORMS  
OF ALL-RUSSIAN PHYSICAL CULTURE AND SPORT COMPLEX  
"READY FOR LABOUR AND DEFENSE" (RLD)**

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**Abstract:** The paper presents the data on the role of RLD complex implementation in the system of physical education as a factor of students' health strengthening, including foreign nationals. The implementation of program and regulatory framework, as well as encouraging students to further motivation to increase their sports skills, involvement in mass sports and leading a healthy lifestyle.

**Key words:** RLD, physical training, healthy lifestyle, sports.

**Relevance:** Based on the order of the Ministry of Sports of the Russian Federation № 739 from 29.08.2014 mass implementation of the complex "Ready to work and defense" in universities started in January 2016. In this regard, the problem of training foreign students of BSMU to meet the norms of the new TRP complex is of the greatest relevance. According to the new RLD complex the tests and norms of the VI stage "Physical perfection" are provided for the students. Accordingly 13 tests are envisaged for boys and girls of 18-29 years old, from them 4 tests are compulsory, the rest are optional. It is necessary to have at least 8 types of tests for gold badge, 7 types for silver, 6 types for bronze. The existing physical education in higher education institutions for non-athletic students today mainly solves the problems of active recreation and tries to direct students to independent physical training. New approaches to the organization of physical education at the University are needed.

**Purpose of the study:** To assess the initial level of physical fitness of international students for the multisport RLD

**Materials and methods:** In order to assess the initial level of physical fitness of the students, 30 people, 17 boys and 13 girls took part in the study. The average age of the participants was  $18.6 \pm 4.35$  years. The data obtained were processed using mathematical statistical methods.

**Results and discussion.** The following tests were carried out: 100 m running, 2 km running, 3 km running, push-ups, high and low bar pull-ups, abs, long jump and shooting. The analysis of the initial level of physical preparedness of the group of boys showed that 15% of the students did the standard of the RLD of the VI level, 20% - bronze, and 65% did not meet the standards in one or more of the compulsory activities. In the group of girls only 10% coped with the tests of the complex for the norm of the bronze mark, and 90% did not meet the standards for the sum of all-round events. At the same time the lowest performance in the group of boys was shown in pulling up, as well as in endurance running at a distance of 3000 m. In the group of girls the lowest level of preparedness was shown in strength types - push-ups, pulling up on high and low bar. Based on the results of the initial testing, we can speak about the average level of physical fitness of the international students and the need for their targeted training for the RLD all-round.

**Conclusions and perspectives:** Several conclusions can be drawn from the results of the study. It is necessary to consistently and systematically implement the norms of the WFSC RLD, which is a major factor in strengthening health, improving the physical fitness of participants and striving for a healthy lifestyle and motivation base of students. And secondly, it is necessary to accustom students to competitive activities, setting them up to improve their results, personal achievements, creating a competitive attitude of students and encouraging them in the middle and at the end of the academic year. Diversify the curriculum with exercises on endurance, explosive power, speed, to improve the initial indicators of physical fitness.

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### **POSSIBILITIES OF THE WINTER EDUCATIONAL SCHOOL IN THE DEVELOPMENT OF SELF-DETERMINATION OF THE PROFESSIONAL ACTIVITY OF CITIZENS AND TO INCREASE INTEREST IN SCIENTIFIC ACTIVITY FOREIGN STUDENTS**

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Key words: university winter and summer school, teaching technology, self-determination, research activities, student motivation.

**Relevance.** The multi-level system of training in higher education and the requirements for basic educational programs at different levels are enshrined in various state documents, the main of which is the law "On Education in the Russian Federation".

The main trends in the development of society (informatization, computerization, globalization, digitalization, internationalization, etc.), the changes taking place in all spheres of life, initiate the processes of reform and modernization in the field of education.

In recent years, summer and winter schools for students from among foreign citizens of the Federal State Budgetary Educational Institution of Higher Education "Bashkir State Medical University" of the Ministry of Health of the Russian Federation are one of the most effective tools for attracting interest in deepening professional education and honing manual skills among students of the Faculty of Dentistry of BSMU, studying in a foreign language.

Research material. According to V. Frankl, any person is a self-determined being, endowed with the freedom to choose what to become in the next moment of his life [9].

The problem of self-determination was considered in the works of K.A. Abulkhanova-Slavskaya, S.G. Vershlovsky, M.R. Ginzburg, E. Giddens, A.N. Leontiev, A.V. Petrovsky, S.L. Rubinstein and others.

Self-determination is based on the activity of the individual, the desire to take a certain position in the system of relations (K.A. Albukhanova-Slavskaya, S.L. Rubinshtein, etc.), a

painful choice, the acquisition of “selfhood” in the conditions of a struggle of motives (M. Gendin), definition and acceptance as “one’s own” types of activity under the influence of a deep individual refraction of the norms and values of the surrounding reality (A.N. Leontiev), making one’s own choice in the process of determining one’s own qualities, abilities, awareness of needs, desires, interests, identifying one’s own psychophysiological, characterological qualities and building relationships with them and social requirements (V.F. Safin).

Self-determination is interconnected by motivation. In the scientific literature, self-determination is understood as intentions, ideas, ideas, feelings, experiences (LI Bozhovich); needs, inclinations (X. Hekhauzen); moral and political attitudes and thoughts (G.A. Kovalev); mental states and personality traits (K.K. Platonov); objects of the outside world (A.N. Leontiev); installations (A. Maslow), the driving force that determines the behavior that contributes to the achievement of a specific goal (Collins).

In modern conditions, self-determination of a person is an adaptive mechanism, as a result of which it is possible to adapt to the requirements and conditions of the environment, as well as to create one's own environment for independent living and the formation of one's own traditions and norms.

As a result, we can conclude that the development of a student as a person who receives professional skills and knowledge without self-determination is not possible.

Research activity in the study is understood as an activity that is aimed at understanding and transforming reality based on the achievements of a particular science and the application of scientific methods. The result of this activity is the development of the methodological culture of the researcher and the acquisition of new knowledge and experience.

Self-determination for research and medical activities will allow the student to show integrity, activity and direction of activity. These personality traits form an internal position and allow the student to exercise a conscious attitude towards their goals and objectives. The activity of the position of the student's personality is expressed in readiness for research and medical activities on the basis of internal attitudes, meanings, personal values, regardless of external norms and conditions, turning the researcher into the subject of his own activity.

Winter and summer educational schools are one of the new forms that promote self-determination of students in research and medical activities. These schools are organized at the Bashkir State Medical University of the Ministry of Health of the Russian Federation, and combine educational activities and various forms of organization of educational leisure for students. Students of educational schools can be students of the Faculty of Dentistry from among foreign citizens of 1-5 courses.

Conducting such schools contributes to the acquisition of new knowledge and skills for students in certain areas of training, provides an opportunity to apply and develop the skills of medical, research activities. It also promotes acquaintance with other students and teachers, the development of educational, scientific communication, the emergence of interdisciplinary projects.

Among the goals of winter and summer educational schools, the following are noted: improving the efficiency of teaching University students, stimulating their interest in scientific activities, systematizing and deepening knowledge, developing and improving skills in specialized disciplines; organization of active, cognitive leisure of students during the holidays, as well as in accordance with the action plan of the educational activities of the dean's office for work with foreign students.

Winter and summer educational schools are platforms for communication, they also contribute to the inclusion of students in practical activities in their specialty, the adaptation of foreign students, and also contribute to the introduction of innovative education and internationalization of the university, the export of educational services and the development of partnerships [8].

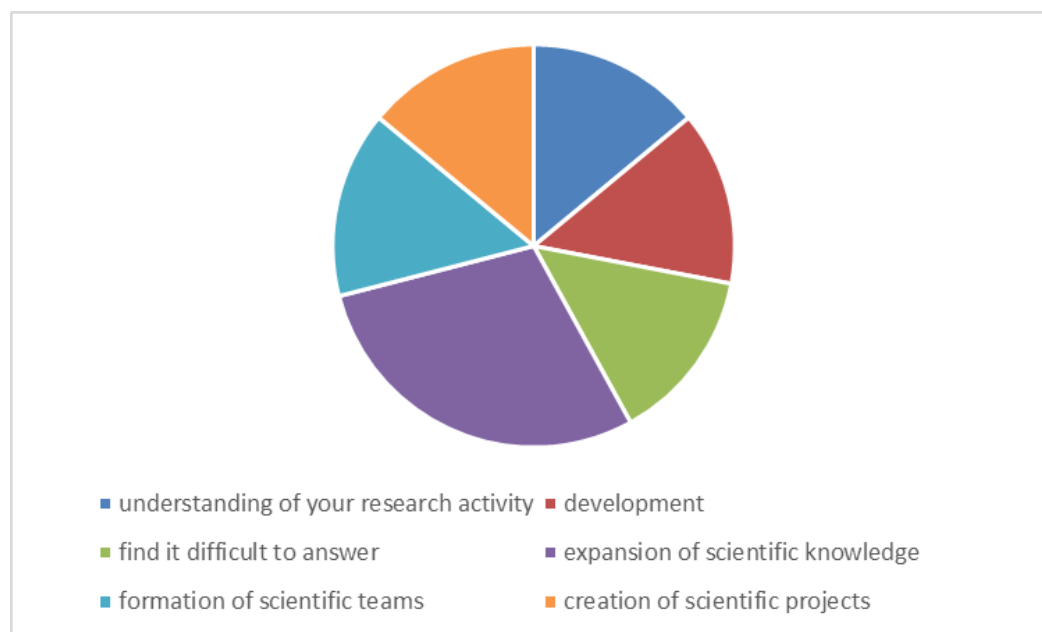
S.A. Limonova, I.B. Nazarova. The experience of holding summer and winter scientific schools is described in the works of O.G. Orlova, A.V. Busygina, M.V. Pimenova, V.I.

Terkulova, A.G. Liakumovich, M.V. Smolyarova. These works are mostly devoted to summer schools.

When studying at the winter educational school, a combination of various forms of educational and pedagogical interaction can contribute to the self-determination of the student in research activities: teacher-student, researcher-consultant, facilitator-researcher, tutor-researcher, mentor-novice researcher, research partners and others. The forms of education in the winter educational school may include: business games, project sessions, consideration of clinical cases, model building, conferences, discussions, trainings, master classes, presentations of students' research papers. The objectives of the winter and summer schools are: the formation and assimilation of knowledge; increasing learning motivation; activation of students' interest in future professional activities; the formation of the ability of students to appropriately allocate time during the holidays.

As activities, there were planned conversations with the faculty of the University, master classes, informal communication with other students, writing reports, incl. and on social networks. Creation of video clips about events, protection of projects, registration of application materials for the results of intellectual activity. The leisure part of the winter educational school is filled with educational activities of the dean's office for work with foreign students.

In 2022, a survey was conducted among students of the Faculty of Dentistry of 2-5 courses studying at the Bashkir State Medical University of the Ministry of Health of the Russian Federation. According to the survey, the corresponding calculations were made: 63.3% have already taken part in educational schools and would like to take part in them again. The survey data is shown in Figure 1.



**Fig. 1.** Opinions of foreign students about the possibilities of the winter school

According to the results of the survey, it was revealed that students are not well informed, but this does not prevent them from showing interest in new trends in the field of education, for example, in the winter school. However, among graduate students there is a small number that gives significance to this process. "Understanding your medical practice" is the closest answer in our opinion.

According to the results of the student survey, it was revealed that this form of education is in demand in educational activities, however, it is necessary to inform students that the winter training school contributes to the development of the corporate and cooperative culture of the university, and also creates a favorable environment for productive interaction between colleagues and students. When representatives of interregional communities are included in educational schools, they can lead to the development of an interstate network of profession-

als of interest. The visiting card of the university, during the annual holding, can be training schools for students from among foreign citizens.

**Findings.** The study of the experience of the possibilities of winter and summer schools for students from among foreign citizens of the federal state budgetary educational institution of higher education "Bashkir State Medical University" of the Ministry of Health of the Russian Federation showed that this is one of the most effective tools for self-determination in specialized specialties of students, giving the opportunity get additional knowledge in the chosen direction, as well as improve conversational skills, get used to the new cultural environment.

**Conclusion.** Self-determination of a student can be considered as a personal new formation, including value scales, determination of one's own capabilities, motives for expectations from professional activity. Winter and summer schools for students in the mediator language are a form of education that combines educational and cognitive-leisure trajectories.

The organization of winter and summer schools at the university will not only contribute to the acquisition of new competencies by students, the expansion of knowledge in their subject area, the development of scientific communication with other students, but also contribute to the student's self-determination for professional activities, understanding the personal significance of his education, the emergence of motivation to continue scientific and educational activity.

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### **ORGANIZATION OF TRAINING OF FOREIGN STUDENTS IN A MEDICAL UNIVERSITY AT THE DEPARTMENT OF PHYSICAL CULTURE**

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**Annotation:** The article discusses the impact of physical education in medical universities on the adaptation of foreign students, their socialization in society and overcoming various difficulties associated with entering a new social culture.

**Key words:** foreign student, adaptation, physical culture.

**Relevance:** Russia is one of the leading countries in terms of the number of foreigners. Only in 2018-2019 years, according to the Ministry of Higher Education and Science, about 290,000 foreign citizens studied in the country [1]. However, the export of educational services leads to some difficulties for university management. One of these is the adaptation of foreign students to a new social and socio-psychological environment. Lessons of physical education are the most important problem solving tool.

**The purpose of the work:** To show the importance of physical education Lessons at the Department of Physical Culture and Sports for all students of the medical University, as well as to find conditions for better adaptation of foreign citizens during the study with the help of physical culture.

Physical education in higher educational institutions is an inevitable part of the educational process and affects the students' development and help to form a personality. Physical education is an important component of the general cultural and specialized education of students throughout all semesters of study and is an integral part of the educational structure of the humanities, the importance of which is manifested in the formation of harmony, mental and physical strength, a motivated healthy lifestyle and mental health.

Kapezina [2] thinks that features of foreign students' adaptation students the are manifested in the fact that they are in an unusual environment for themselves, which is expressed in:

- Language barrier
- Differences in mentality about
- Distance from relatives and friends
- Other traditions in clothing
- Differences in climatic and geographical conditions

This academic year, Bashkir State Medical University has about 4,200 foreign students, from about 54 countries, mainly from Asia and the Middle East.

It is known from the experience of last years that teaching foreign students in a new socio - cultural environment may occur stress, psychophysiological problems, poor academic performance and exacerbation of chronic diseases. This is because of adaptation to a new lifestyle, language, environment and social environment.

That's why teachers have to do the hardest work to overcome these difficulties. At the beginning, for positive dynamics, it is necessary to set up a positive attitude among students, as well as motivate them to do sports. It is possible because of to various mass sports events, sports contests and competitions. Moreover, students should take part in these events in various roles (players, spectators, organizers). This will help to interest the younger generation, and teach students to interact with each other in an informal setting.

The next stage is to attract foreign students to classes in sports clubs. It is especially important to consider national characteristics and traditions of certain countries and people. For example, representatives of Central Asian countries attend various types of martial arts with great pleasure, while students from India prefer tennis, chess, swimming.

In addition, it is important to follow some rules:

- Physical activity should correspond to the level of physical fitness, taking into account the individual characteristics and state of health of the student
- It is necessary to consider the difficulties associated with the language barrier, religious and national characteristics
- Present the material in a playful way, try to involve the student in the process, support his zeal

It is known that the quality of physical education training classes depends on the teacher's initial training level. For more effective physical education classes, a teacher should identify the level of training, its weaknesses and strengths and determine the choice of the desired sport.

An experiment was conducted. In total, 140 students from various countries, such as Iran, Uzbekistan, Tajikistan, Vietnam, Angola participated in the study. The following tests were: jump into length from a place, running 30 m. from a high start, shuttle running 3x10 meters, push-ups from the gym bench in 1 minute, and so on.

The results were evaluated on a 5-point scale, where: "5" - a high level of physical qualities; "4" - good; "3" - normal; "2" - low; "1" - very low.

The average indicator was calculated both for all physical skills and for individual kinds. The analysis of the results showed the following. Students from Tajikistan have the highest level of skills in terms of physical abilities - 32.1 points, whereas the students from Angola have the lowest score - 27.9. Analyzing the results of the study of physical skills, we revealed the following outcome. Students from Iran have high-speed qualities and universal endurance and resilience correlate to a "good" level. Students from Uzbekistan and Tajikistan have strength abilities at a "good" level, which cannot be said about speed. General and strength endurance of students from Iran and Vietnam is at a "satisfactory" sublevel, and coordination at a "high" [3]. Thus, this experiment helps to find the weaknesses and strengths of students and it allows teachers to plan their physical education lesson plan according the level of preparedness and capabilities of foreign students.

**Conclusion:** Based on the above information, it can be concluded that physical activity is the most important means in adaptation of foreign students and the formation of personality, the preservation and strengthening of health, one's own thinking and determination. In addition, physical culture helps to set up communication between peoples and leads to team building.

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### **OUR EXPERIENCE OF WORKING WITH AN INTERNATIONAL STUDENT SCIENTIFIC CIRCLE IN THE PREPARATION AND CONDUCT OF SURGERY OLYMPIADS, MASTER CLASSES AT THE DEPARTMENT OF TOPOGRAPHIC ANATOMY AND OPERATIVE SURGERY**

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Annotation. In modern conditions, the export of educational services is increasing in the world, which in a certain way affects the training of students. Internationalization of education affects all areas of the functioning of the university. The Department of Topographic



Anatomy and Operative Surgery of BSMU actively operates an international student scientific circle (SNC), which participates in intra-university, All-Russian, international Olympiads in surgery. Students also actively participate in master classes, joint interuniversity meetings of circles. International students are provided with an operating room with a laparoscopic stand, a room with microscopes for microsurgical operations. The results of systematic training of foreign students lead to the fact that they often take prizes at various Olympiads as part of an international team. Joint training in the SNK has a fruitful effect on the learning process in the conditions of bilingualism.

Keywords: international student scientific circle, surgery Olympiads, master classes, topographic anatomy and operative surgery.

In modern conditions, the export of educational services in various fields of education is increasing due to globalization, which in a certain way affects the quality of students' education. Internationalization of education affects all areas of the functioning of the university. Every year the number of foreign students studying at BSMU increases. New goals and tasks appear before the University and departments - helping students to achieve an understanding of other cultures, acquiring an international worldview, strategies for acquiring professional competencies, adapting the learning process in bilingualism. The increase in the flow of foreign students also affected the work of the student scientific circle of the Department of Topographic Anatomy and Operative Surgery. Since 2015, along with the SNK of the department, the SNK of the international team began to function, which was actively involved in scientific and practical work. The international composition of students is the most diverse: Hindus, Iranians, Tajiks, Egyptians, Palestinians, Uzbeks, etc. More than 20 nationalities. The language of communication is Russian and English. At the department, a responsible teacher was assigned to the international team of the SNK. Additionally, an operating room with a laparoscopic stand, an office for microsurgical operations equipped with 5 microscopes were allocated for the team. From 15 to 30 foreign students attended the SNC monthly. Classes in the international SNK were conducted similarly to the SNK of the department: monthly meetings with reports (or abstract reports), demonstration of various operations on wet preparations (cadaveric operations). It was noted that foreign students also actively attended the SNK of the department and made presentations, operated using a laparoscopic stand, performed microsurgical operations under a microscope on cadaveric preparations and rats. As in every community, active student leaders appeared, who with great interest prepared reports on various topical topics of surgery and attracted new foreign students to study at the SNC. Since 2015, a separate international team has been formed annually, which participated in interdepartmental Olympiads in surgery, and the winners of these Olympiads were included in the main team of BSMU, which participated in regional, All-Russian and international Olympiads. At the same time, foreign students often won prizes at competitions. So, in 2022, the Iranian team of the 3rd year of the Faculty of Dentistry received a cup for a prize-winning place. Foreign students also actively participated in joint circles with students of other universities (Perm Medical Academy, Kursk Medical University). It was noted that every year of study at BSMU, foreign students spoke Russian better. It was also noticed that Russian-speaking students communicated with foreign students with great interest during joint operations (Fig.1, 4), competitions. In recent years, in connection with the "Priority 2030" program, various demonstration operations (master classes) have been performed at the department by invited highly qualified surgeons, cardiac surgeons, urologists, neurosurgeons on animals: nephrectomy, skull trepanation, heart transplantation, hernioplasty, liver transplantation, plastic surgery, cholecystectomy, etc. These operations aroused great interest among international students (Fig.2). Foreign students participated at separate stages during these operations. The captains of the teams of foreign students, after mastering a number of operations, independently conducted demonstration classes for junior students on cadaveric preparations. Foreign teachers make a great contribution to the internationalization of education. Two teachers from India work at the department, dentists are taught by a teacher from the Republic of South

Africa (Fig.3), a common language with students from Tajikistan, Azerbaijan. Iran, Iraq, the Emirates, Saudi Arabia, the senior lecturer of the department is an Iranian citizen. (Fig. 3).

Thus, the active involvement of foreign students in classes at the SNK, master classes, Olympiads contributes to the interest in studying at the Bashkir Medical University, which is reflected by prizes at various Olympiads in surgery.



**Fig. 1** Master class. Vivisection. Orthotopic liver transplantation is performed at a joint meeting with foreign students. The operation is performed by A.A. Akhiyarova (4th year of the Faculty of Medicine), A.M. Mosoyan (4th year), D.O. Galimov (4th year), V.L. Belozertsev (4th year)



**Fig.2** Foreign students perform cadaveric operations ("gastric wound suturing") on a laparoscopic simulator.



**Fig.3** Intra-university Olympiad in surgical dentistry. Senior teachers Aria N.R., Defoe T.R. evaluate the practical skills of dental anesthesia in an international team consisting of Iranian students.



**Fig.4** An international team performs an indicative operation –prosthetics of the aortic valve of the heart (vivisection). The students are operated by V.V. Plechev and A.H. Tukhta-boev.

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## FOREIGN STUDENTS AT RUSSIAN HIGHER EDUCATION INSTITUTIONS

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Annotation. Every year the number of students who came to Russia to study from other countries is increasing. Most of all are interested in studying at medical universities in the Russian Federation. There are especially many foreign medical students in Moscow. In recent years, the number of foreign students has increased in almost all medical universities. If we look at the scale, then the Peoples' Friendship University of Russia can be singled out in the first place. Students from Kazakhstan (about 61 thousand students), Uzbekistan (about 48.7 thousand students), China (about 32.6 thousand students), Turkmenistan (about 30.6 thousand students), Tajikistan (about 23.1 thousand students), India (about 16.7 thousand students), Egypt (about 12.4 thousand students), Belarus (about 10.2 thousand students), Ukraine (about 9.1 thousand students) and Kyrgyzstan (about 8.6 thousand students). However, most students from Russia are in the European Union, the USA and Canada.

From 2000 to 2019, about 2 million citizens of the Russian Federation went abroad to study. According to the Atlantic Council analytical center, 25% of Russians living abroad stayed after their studies

Keywords. Universities of Russia. Foreign students, Russian students abroad.

Due to the high international integration in world practice, the exchange of students between different countries has also become widespread. A relatively large number of students from other countries also study at the universities of the Russian Federation. There are entire higher educational institutions specialized in teaching foreign students, for example, the Peoples' Friendship University of Russia (PFUR) named after. P. Lumumba. Many Russian universities accept foreign students for study. However, there are different options. In some cases, foreign students study together with Russian students in Russian, and in the other, separate academic groups are formed only from foreign students and classes are conducted in English.

The largest number of students come to Russia from Asian countries - China, Vietnam. India, Iran, Tajikistan, Uzbekistan. Students come to study in Russia also from Ukraine, including from the Donetsk People's Republic and the Lugansk People's Republic and Belarus. Schoolchildren from Ukraine, DPR, LPR in Russia receive education on a budgetary basis and can enter any university in the Russian Federation.

The number of foreign students in different universities of the Russian Federation is different. Thus, foreign students from 29 countries, including China, study at the Moscow campus of the RANH and GE. Congo, Israel, Turkey, Iran, Pakistan. At the same time, about 300 places were allocated for training under the RF quota. The youth of the Donetsk People's Republic and the Luhansk People's Republic are also studying in Russia under a quota.

In REU them. G.V. Plekhanov among foreign students most of all from Vietnam, then from Ukraine, Tajikistan and Belarus. The number of foreign students studying in the Russian Federation is increasing every year. For example, in 2022, the number of applications for admission to St Petersburg University was 20% more than in 2021.

The number of foreign students enrolled at Moscow State University in 2022 was also significantly higher than in 2021. Most of them were citizens from Eastern full-time, Central and Western Asia.

The number of students from Abkhazia, Tajikistan, Belarus, Moldova who entered the Moscow campus of the Financial University in 2022 amounted to 604 people. Students from Haiti and Mongolia also applied for admission. From the DNR and LNR. 30 people became students of this university.

Every year the number of students from other countries and in the universities of the Republic of Bashkortostan increases. In recent years, the number of foreign students at the

Bashkir State Medical University has also increased markedly. More than three thousand foreign students from 57 countries of the world study at BSMU. The number of admissions over the past five years under targeted training has doubled in residency programs and by two-thirds in specialist programs.

In 2022, 255 foreign students from Angola, Tajikistan, Vietnam, Uzbekistan, Yemen, China and Kazakhstan successfully graduated from the Ufa State Petroleum Technological University. More than 350 foreign students from 48 countries of the world study at the Ufa State Aviation Technical University.

Currently, the number of foreign students at the Bashkir State University is 1300 from 40 countries of the world (Philippines, Angola, Saudi Arabia, Colombia, Kenya, Algeria, etc.).

The influx of young people to acquire higher education is to a greater extent observed in the universities of the USA, Canada and the European Union. Judging by the data of various official and unofficial sources, about 1.5% of Russians' children study in other countries, but to a greater extent in the so-called "West". Naturally, wealthy, that is, financially well-off citizens of Russia, can afford such a "pleasure".

The number of Russian students studying abroad has increased by 30% over the past 1 year. So, in 2018, the number of first-time students to study was 12,700 people. About 56,000 Russians study in the European Union. In the United States in 2017, the number of students from Russia was about 5.5 thousand people. In Canada, from 2010 to 2016, the number of students from Russia increased to 11 thousand. From 2000 to 2019, about 2 million citizens of the Russian Federation went abroad to study. According to the Atlantic Council analytical center, 25% of Russians living abroad stayed after their studies (Fig. 1).



**Fig.1.** We run to the "Paradise of the West".

Those reasons that are listed on the Internet as an advantage of studying in the "West" are not very justified in life. Human life is not only money and pleasure industry. Living in a foreign land, on the one hand, is a kind of exile from your homeland, your small homeland, alienation from your pedigree, human value, characteristic of your homeland, generation. It is to go to another world, to a strange world. Many who sent their children to study abroad cannot fully communicate with their children and grandchildren. In fact, they lost them. Famous universities in the European Union and the US, on the other hand, are not without flaws ei-

ther. For example, the modern political leaders of the "West" - Annalize Burbuk, Lisa Truss, who graduated from the vaunted Western universities, are far from distinguished by deep knowledge.

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### **INTERNATIONALIZATION OF EDUCATIONAL INSTITUTIONS IN RUSSIA**

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**Annotation.** Despite the flow of “Western” sanctions, the integration of Russia into the world economy is growing. Thanks to the establishment of favorable relations with foreign countries, the number of foreign students increases in Russian university. In this regard, structural changes are also observed in educational institutions. This applies, among other things, the restructuring of educational standards aimed at adaptation to the conditions of internalization of the educational process. New educational units are being formed, where lectures, practical and seminars are held in English. The departments create new educational and educational and methodological aids designed to use them in class with foreign students. The tasks of creating an integrated course of knowledge, both a foreign language and objective discipline, are solved.

**Keywords.** The educational process, foreign students, new units at the university in Russia.

Thanks to the increase in the rating of Russian higher education, the number of foreign students is increasing every year in the country. In this regard, new concepts and terms appear, as “Internationalization of Education”, “Internationalization of the university a. In this case, the structure of educational institutions is changing. New educational and educational developments are being created for conducting classes with foreign students. In accordance with the needs of the educational process with foreign students, the forms of financing educational institutions are rebuilt. Thus, the model of the university a. In the work of educational institutions, new accents arise. The simultaneous training of teachers in a foreign language, also in a special academic discipline, become relevant. At a medical university, in particular, the internationalization of the educational process provides for the so-called “soft model of subject-language” integration of teaching the English language teachers of theoretical and clinical departments. At the same time, the internalization of education simultaneously poses a more fundamental task - specialized training of the teacher of the department for working with foreign students. At both levels “Internationalization of the university A is set one task - the organization of teaching the educational module in accordance with modern requirements of professional competencies. The difference between these two approaches is the depth of preparation.

Of course, it is not realistic to include the entire faculty of the university but in the training courses of a specialist-a teacher in English. Based on the number of foreign students in a particular university, several options for organizing the educational process are permissible. It is conditionally possible to represent the first level when the number of students from the line is no more than one or two dozen. Then foreign students are distributed by academic groups who study in the language of this state. In this case, for example, in Russia, foreign students will have to study in Russian. The second level, when the number of foreign students allows you to form several academic groups, then it is advisable to organize the educational process in English. As the third level of organization can be allowed when the number of stu-

dents from foreign countries allows you to form a whole foreign faculty of this university, or a separate foreign educational institution.

In accordance with the above levels of work with foreign students, the provision of the faculty is also provided. For the first level, when foreign students are distributed in academic groups of this university, teachers who speak English are not required.

In the second level, if there are formed individual foreign academic groups, teachers are required who are able to conduct a lesson in English.

Those teachers who conduct classes with foreign students in English pass the test in English and receive recommendations for further work. Among them, some give lectures, others conduct seminars and practical classes.

Of course, the internalization of education does not exist in isolation from other forms of internalization. It is also included in economic relations, including as trade and services. Educational internationalization is in one series of international, intercultural and research functions, including financial services.

Thus, the internalization of education within the concept of “internal internationalization of the university A” includes many positions in the work of the educational institution. Some of these positions are aimed at further success in work and mutually beneficial international cooperation. University of AM in accordance with the tasks set, adapting and coordinating its educational activity in the new conditions of work with different language positions.

This applies to the development of new educational standards, competencies and work programs of training modules.

Conclusion. Thus, in connection with educational activities with foreign students, the model of the university a. In the work of educational institutions, new accents arise. The simultaneous training of teachers in a foreign language, as well as in a special academic discipline, become relevant. At a medical university, in particular, the internationalization of the educational process provides for the so-called “soft model of subject-language” integration in the process of teaching English teachers of theoretical and clinical departments. At the same time, the internalization of education simultaneously poses a more fundamental task - specialized training of the teacher of the department for working with foreign students.

Adaptation of the university A to new working conditions related to the training of foreign students undergoes versatile. These include cooperation with international experts, accounting for international educational competencies, participation in international educational ratings, projects, as well as international certification of quality and teaching methods.

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### **INDEPENDENT WORK WHEN STUDYING PHARMACOLOGY AT THE DENTAL FACULTY BY FOREIGN STUDENTS**

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**Abstract.** The article deals with the organization of independent extracurricular and classroom work of students of the Faculty of Dentistry at the Department of Pharmacology, the role of the teacher in this process.

**Keywords:** pharmacology, independent work of students, educational process, forms of control.

The training of dentists in Russia is carried out according to the Federal State educational Standard 33.05.03 "Dentistry". The implementation of the educational standard is based on a competence-based approach to learning and the introduction of modern technologies for monitoring students' knowledge. Rapid scientific and technological progress requires that future dental specialists have the necessary skills in a short period of time to expand their knowledge and constantly improve their professional competence. Scientific evidence shows that such skills and professionalism can be achieved only with the help of "self-study". Strengthening the role of independent work of students involves creating the conditions necessary to achieve a high sustainable level of knowledge and skills that allow students to achieve maximum efficiency in their future profession. The educational process should develop students' learning skills, form their ability to self-development and creative application of acquired knowledge and outline ways to adapt to professional activity in the modern world. The issue of organizing the independent work of trained dentists in the study of pharmacology in order to develop and improve the current health care system is very relevant.

**Goal.** To outline the forms and features of the organization of independent work of foreign students in the educational process at the Department of Pharmacology, specialty 33.05.03 "Dentistry".

**Results.** The organization of independent work of students is one of the key issues in the modern educational process. Independent work of students is the planned work of students, carried out according to the assignment and with the methodical guidance of the teacher, but without his direct participation. For the successful implementation of independent work of students, it is to ensure effective control over the quality of performance. According to the modern understanding of learning as a process of forming the identity of future specialists, the interpretation of independent work of students is a method of forming independence and activity of the individual, setting and solving practical and theoretical tasks, the ability to apply theory in practice. The result of self-study is the development of such personal qualities as independence, namely the ability to organize and carry out their activities without outside guidance and assistance. The role of the teacher is not only in the organization of practical classes, but also in the proper organization of the student's independent work both in practical classes and in extracurricular time. The forms of independent work of students are determined when developing the work program of the discipline by the content of the academic discipline "Pharmacology" in the specialty 31.05.03 "Dentistry".

The result of independent extracurricular work of students is training in the skills of working with educational and scientific literature to study the discipline and develop their abilities to independently analyze the information received. And in order to increase the creative activity of future dentists, the Department of Pharmacology provides, among other things, the preparation of reports in the form of multimedia presentations on topical issues of modern pharmacology.

Independent work of students includes working with textbooks, educational materials, primary sources, lecture notes and electronic resources during practical classes in the classroom and outside it; performing various individual tasks, situational tasks with different levels of complexity. Successful implementation of students' independent work is possible due to their motivation, which determines not only the successful completion of the task, but also a high quality understanding of new material. A clear focus on understanding something new leads to its successful implementation, in addition, a further positive feeling after learning new information, understanding and seeing the importance of acquired knowledge and skills serve as an important incentive for self-learning and leads to a positive attitude to learning activities, developing interest in learning and confirming the importance of acquired knowledge for further career growth.



There are two types of independent work in the educational process at the Department of Pharmacology: extracurricular – independent work performed by a student on the instructions of a teacher, but without his participation; classroom – independent work is performed in practical classes under the guidance of a teacher.

To perform extracurricular independent work, students have methodological materials that guide independent work on the discipline: methodological guidelines for self-preparation for practical classes and an exam in pharmacology, information support for the educational process, including a list of basic, additional literature, various electronic resources (electronic access to the Web of Science citation database, etc.); a block of test tasks for assessing the survival of students' knowledge.

One of the forms of training is the classroom independent work of students. In practical classes, the use of various forms of independent work allows you to make the learning process more interesting and raise the activity of a significant part of the students. The Department of Pharmacology has a set of methodological guidelines for practical classes on all topics of general and private pharmacology for students of the Faculty of Dentistry, reflecting the specifics of teaching. Methodological guidelines for practical classes include a chronological map of the lesson, theoretical questions on the topic under study, as well as a section of independent work: a set of situational tasks, test tasks, prescription tasks, questions for self-control, a list of mandatory and additional literature. Solving situational problems, students analyze the effect of drugs on the totality of their pharmacological effects, the mechanism of action, evaluate the possibility of interchangeability of drugs. Performing prescription tasks, they prescribe medications in prescriptions for certain pathological conditions, based on the characteristics of pharmacokinetics and pharmacodynamics. An important role in the organization of independent work is played by the ability of the teacher to motivate the student to study the subject and control the educational process, which makes it possible to increase the effectiveness of studying the discipline.

The role of the teacher is transferred from the traditional control function to the function of controlling external factors. Therefore, the most important task of a teacher is to teach students to learn. To really develop this ability, it is necessary to eliminate memorizing material from books. Reading literature, lectures should encourage students to correlate this information with their own thoughts, feelings, critical analysis and evaluation of them from a scientific point of view. This means that with the help of the studied material, thinking develops, which allows you to study further better, not by memorizing theory, but by analyzing. This work contributes to the understanding and consolidation of educational material, the formation of the ability to analyze, compare, generalize, apply theoretical knowledge in practice, and most importantly, it forms a conscious, ready for further practice future specialist.

### **Conclusions.**

1. Independent work in the educational process of the Department of Pharmacology is carried out by training future specialists who are able to withstand competition in the labor market, ready for competent and effective work in their field aimed at stimulating their professional development and fostering creative activity.

2. Working independently under the supervision of a teacher, the student not only acquires knowledge of pharmacology, masters the skills and abilities to use this knowledge, but also acquires the skills to use creativity in further training.

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## EXTRACURRICULAR AND CREATIVE ACTIVITIES OF STUDENTS IN THE FRAMEWORK OF THE EDUCATIONAL PROCESS

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**Abstract:** This paper highlights the problem of making it interesting for students to get involved in scientific studies. It identifies such an issue and offers some possible solutions on how it could be done. It explains the efforts of BSMU Anatomy Faculty in the area of making its personnel more science oriented.

**Key words:** science in the University, science popularization, problems in science, students and science

Science is the most important, the most beautiful and necessary thing in a person's life, it has always been and will be the highest manifestation of love, only by it alone will a person conquer nature and himself.

A.P. Chekhov.

Science is a sphere of human activity aimed at developing and organizing knowledge about the real World. The basis of this is the collection of facts, their constant updating and systematization; analysis of the information received. And already on this basis, the synthesis of new knowledge or generalization of existing ones, ultimately allows us to build cause-and-effect relationships necessary to achieve the goal, to solve a particular issue [4,7]. The development of science is a step towards improving the quality of human life, reaching new horizons, discovering something truly necessary. Without the introduction of new technologies, it is difficult for us to imagine our current life. Therefore, the significance of the issue of increasing students' interest in scientific activity is an integral part of the activities of university, because specifically within the walls of the university a student begins his first steps into the world of "Science". The arrival of young people in science, the attention of the uninitiated part of society to scientific problems depend on the degree of popularity of science [3].

Unfortunately, in medical universities, unlike technical ones, term papers and theses are not practiced. And therefore, only a few students comprehend the basics of science, going beyond the curriculum, while in technical universities, elements of scientific activity are already included in the curriculum.

Having entered the university, the student is obliged to master the curriculum. It takes a lot of effort and time, especially in medicine. If the student copes with this, then most often he has a desire to master other activities. It is at this moment that a teacher is needed more than ever in order to first induce, arouse interest in science, and then direct the student in the right direction [2,5,6].

The work of a doctor is not just the diagnosis and treatment of patients, but the constant systematization of the smallest signs he has identified, the analysis of literature, the search for new methods and original solutions in specific cases. This job is not only thoughtless adherence to medical and economic standards, which is certainly necessary in modern conditions, but with blind following this might destroy the research impulse.

Almost 200 years ago N.I. Pirogov expressed an important opinion, extremely relevant today, that educational work without scientific work cannot exist at all. In his articles, the scientist has always promoted the strengthening of the scientific activities of professors and teachers of the university, focusing on the scientific research of young people.

The arrival of young people in science, the attention of the uninitiated part of society to scientific problems depend on the degree of popularity of this area.

The popularity of science within the walls of universities can be ensured in many ways, ranging from actions in departments to global inter-university projects. At the Department of Human Anatomy of the Bashkirian State Medical University, one of the main scientific directions is the study of the elements of the musculoskeletal system, in particular, large

joints. Students actively participate in this work. In addition, the department has a student scientific society (SSC), whose meetings are held regularly (once every two weeks) with the participation of a large number of students. At the same time, they can act as speakers, active participants in discussions, scientific disputes, and even passive listeners: everyone chooses his own activity. At SSC meetings, students present to their colleagues both abstract reports, during the preparation of which they improve the skills in working with a large amount of scientific literature, and the results of their own research under the guidance of senior mentors. To encourage the initiatives of students and their work at the Department of Anatomy, within the framework of the rating system for assessing knowledge, provisions have been developed for additional points, which is an important component of incentives. However, in my opinion, the initial link is still internal motivation. In any case, all of the above makes science very popular within the department.

In recent years, the practical activity of students has become widespread, which consists in dissection, during which students develop manual skills, and also collect information about the variants of the structure of the human body. Evaluation of performed dissections with their defence (an element of the thesis) is carried out by a commission of professors and associate professors of the department. In addition, according to the results of the research, students make reports at the annual scientific conference of students and young scientists of the Bashkirian State Medical University. This activity is also encouraged by additional points to the final score on specific subject.

From the 2009, at the Department of Human Anatomy, students have tried themselves in a new role. Several teams of students under the guidance of teachers created educational films on the most complex sections of the subject area: CNS, PNS, splanchnology. This method will not only ensure targeted "scientific" communication between the student and the professor (supervisor), but also help other students who evaluate the work, to understand better the problem covered.

Annually under the guidance of the staff of the Department of Human Anatomy, thematic competitions are held. They brought together not only students of the first years of study, but also senior students. This gave a great incentive for further work in the scientific field.

Also, an important factor in the development of scientific potential is material support. Since 2006, following the results of training at the Department of Human Anatomy, students who have particularly distinguished themselves in scientific research have been awarded a scholarship named after Professor S.Z. Lukmanov.

In addition, it is necessary to form funds to encourage not only "inquisitive student minds", but also their scientific supervisors. [1]

This will allow science not only to survive, but also to continue its development, as well as to create scientific potential, which is extremely important. After all, all steps to popularize science in universities are made to ensure that there are those who will promote it in the future.

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## INTEGRATION OF DIGITAL TECHNOLOGIES IN FOREIGN LANGUAGE CLASSES

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**Abstract.** The article discusses the use of digital technologies in the educational process helping to implement the most important didactic principles: to apply various forms of teaching organization, to ensure the various forms of representation of learning material, its availability not only during school hours, but also during independent extracurricular work of students, to activate their consciousness and activity in learning.

**Key words:** digital technologies, foreign language, vocabulary, quizlet

Nowadays the problem of using digital educational resources and technologies in foreign language classes is considered as one of the most popular topics in education. The traditional model of the educative process consists of three parts: textbook, teacher and student. By all means, it has already lost its relevance and has been supplemented by a new link. This link is digital technologies. They give students and teachers an unlimited number of resources that help to achieve the main goal of learning a foreign language – the formation of communication skills and the possibility of intercultural interaction, which is the basis for the existence of the Internet [4].

In education and teaching methodology of foreign languages Internet technologies are interpreted as “set of forms, methods, ways, techniques of teaching a foreign language using Internet resources” [7]. Today the world network is becoming one of the key sources of information retrieval, various teaching methods, applications and other resources that can be used to modernize and facilitate the process of learning a foreign language.

The proficient use of digital technologies provides great opportunities for improving the foreign language lesson. Educational Internet technologies provide modeling of conversational situations that contribute to the formation of fundamental skills of foreign language communication, a variety of educational lesson activities, the opportunity for students to study interesting topics and to increase their motivation [3].

The use of educational digital technologies in a game mode is an integral part of the learning process. It allows to diversify the lesson and relieve stress after exercises. The main aims of gaming on the foreign language lessons include the development and training the certain skills; improvement the speech skills; communication training; the formation of certain abilities and mental functions; cognition (in the field of language); memorization the material [5]. Game methods make it possible to interest students without a clear indication of the educational goal, while performing their teaching role.

Quizlet is one of the most popular and highly sought digital resources. It has various learning modes and allows to learn a foreign language effectively, enriching vocabulary, improving pronunciation, reading and understanding a foreign text. The Quizlet app has a fun and interesting game mode that motivates and engages students in the process of education.

Using this application, teacher can create a certain course. For instance, there is a course that includes several modules: digestive system, respiratory system, cardiovascular

system, skeleton muscular system, nervous system, etc. It was formed in order to study lexical units on the topic "Body organs". Creating a course with a number of modules allows teacher to combine several topics into a common section and provide a holistic approach to mastering a given topic. When student connects to the course, all modules become available, even new ones, recently created by the teacher, are automatically opened. Thus, it becomes possible to form vocabulary for a lesson or a few ahead.

Learning the module "Digestive system", students discover the following lexical units: ротовая полость – oral cavity, глотка – throat, пищевод – esophagus, желудок – stomach, печень – liver, двенадцатиперстная кишка – duodenum, кишечник – intestine, толстая кишка – large intestine, тонкая кишка – small intestine, прямая кишка – rectum. The terms are displayed and accompanied by pictures and audio buttons on the user's screen. When student presses it, the pronunciation of this term is reproduced in both languages. It involves both auditory and visual types of perception. Such a comprehensive presentation of the material helps to consolidate concepts and terms, implementing the didactic principle of visualization of learning.

The site presents several modes for independent study of the material by students. And they are: Cards, Learning, Test, Match. When student presses the term with a picture in the Cards mode, it turns to the side with the definition. Student reads it and marks it with a tick. The Learning mode offers to select the correct variant from the four definitions for the term. The Test mode is presented by the most diverse combination of tasks. Students should determine whether the term and definition are chosen correctly, choose one of the four variants of the definition for the term, compare the list of definitions with the list of terms, add the definition to the terms. After completing the test, the user sees his rate in percentage and analysis of mistakes. In the Match mode, a box appears on the screen with terms and definitions that the user must match, at the same time, a countdown is made. At the end of the game players see a leaderboard with animations, which additionally motivates students. These modes can be introduced during the lesson at the stage of introduction of new vocabulary, as a warm-up, during revision of material or assigned for homework.

Particular interest of our research is directed to the modes Quizlet Live and Test, with which a teacher can organize competitions between students. In Quizlet Live mode, teacher can choose form participation of students in teams or participation of students in the game individually. The program forms teams randomly, students must find each other and get together for the most effective performance of the test. On the screens of mobile devices, a common term for all team members appears and several options of definitions that are individual for each participant, so the correct answer is presented on only one device from the whole team. Therefore, this mode ensures the maximum involvement of each team member in the game process, as well as the support of team members by their teammates. During individual participation in the game Quizlet Live, students also choose one of the definitions for the term.

In the Test mode, the teacher can select 12 words from the entire list of terms for testing, which helps to revise and memorize the most difficult for students terms. Participants are presented with a question and four possible answers; after all participants answer the question, the correct answer is displayed. The teacher is offered the statistics of answers and the transition to the next question, which allows to control the process, provides time to analyze the mistakes. After completing the test, the participants see their results in percentage and quantitative terms, as well as questions with selected answers, the correct ones are highlighted in green. In practice, such game modes have a great motivating potential, they interest students in mastering new vocabulary, draw attention among students of different ages. Work with this web site and app can be carried out at all stages of the lesson, covering new material as well as revising the material studied at previous classes. The site is also great for use as part of pre-text work introducing new vocabulary, providing an unusual, modern way for students that can interest them.

The use of digital technology occupies a large part in the methods of teaching foreign languages, helping to diversify classes activities, ensure better assimilation of new material and high emotional engagement of students during the game [1, 8]. The introduction of such educational resources in the classroom is necessary to further stimulate the motivation of students, involving them in the learning process. The introduction of new forms of activity into educational activities is also an important aspect in the process of adaptation of students [2]. Of course, such methods have their drawbacks, which turn out to be labor-intensive when planning a lesson, they require a high reaction rate from students, the ability to interact in groups [6]. In addition, problems with the Internet connection for both students and the teacher are not excluded, without which the use of these technologies is impossible, this should be taken into account when drawing up the lesson plan.

The use of digital technologies in the classroom helps to implement the most important didactic principles: to apply various forms of learning organization, to ensure the various forms of representation of learning material, its availability not only during school hours, but also during independent extracurricular work of students, to activate their consciousness and activity in learning. In the era of rapidly developing electronic portable technology, the use of various technologies in the classroom is the natural and most effective method of mastering the material.

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**FEATURES OF TEACHING THE VARIANT PART "FUNDAMENTALS  
OF MEDICINAL PLANT GROWING" AT THE DEPARTMENT  
OF PHARMACOGNOSY TO STUDENTS IN THE INTERMEDIATE LANGUAGE**

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Annotation: The article deals with the features of teaching the variable part "Fundamentals of medicinal plant growing" at the Department of Pharmacognosy with a course of botany and the basics of herbal medicine of the Bashkir state medical university for students in the mediator language (English) in order to implement a competency-based learning approach. As well as the stages of development and formation of methodological materials, a fund of evaluation tools.

Key words: fundamentals of medicinal plant growing, competence.

The Federal State Educational Standard of Higher Education in the direction of specialty training 33.05.01 Pharmacy consists of a mandatory basic and variable part, the latter of which is aimed at expanding and deepening the competencies of the standard, competencies additionally established by the university and the requirements of the professional standard (development of labor functions ) [1]. A set of disciplines (modules) related to the variable part of the educational program is determined by the university independently in the amount established by the relevant Federal State Educational Standard of Higher Education, and are partly mandatory for students to master.

Mastering the disciplines of the variable part enables foreign students to expand and deepen their training, determined by the content of the mandatory part, to master additional competencies, skills, labor functions necessary to ensure competitiveness, in accordance with the demands of the labor market and opportunities for continuing education.

The implemented discipline of the variable part "Fundamentals of Medicinal Plant Growing" at the Department of Pharmacognosy with a course of botany and the basics of herbal medicine of the Federal State Budgetary Educational Institution of Higher Education of the Bashkir state medical university of the Ministry of Health of Russia within the framework of the curriculum and the main educational program of the specialty 33.05.01 Pharmacy complements the special pharmaceutical discipline "Pharmacognosy". The program on pharmacognosy provides for the development of the basic methods of cultivation of medicinal plants, however, the study of the theoretical foundations of medicinal plant growing is not included in the lecture and practical course. The course "Fundamentals of medicinal plant growing" for future pharmacists, whose professional activities will be related to issues of pharmacognosy, will allow them to master the knowledge, skills and abilities of cultivating medicinal plants.

Development and formation of educational materials (for lectures, practical classes for teachers and students, for independent contact and extracurricular work) for teaching the discipline "Fundamentals of medicinal plant growing" include the following steps:

- 1) formation of the goal and objectives of the discipline in accordance with the requirements of the Federal State Educational Standard of Higher Education;
- 2) analysis of the objects of study to determine their significance in the implementation of the goals of mastering the discipline, the distribution of the number of hours for certain types of classes according to the curriculum;
- 3) conducting a comparative analysis of the available exemplary work programs and methodological manuals for the formation of the necessary knowledge and skills;
- 4) designing a working version of the educational and methodological materials of the discipline, which is corrected in the course of optimizing the educational process and checking the assimilation of the quality of assimilation of the material.

When compiling the work program, designed for 108 hours (3 credits), we identified 3 sections of the discipline - "Introduction. Plant growing as a science", "Quality of medicinal

plant raw materials”, “Peculiarities of cultivation and harvesting of medicinal plants”. Classroom classes are designed for 72 hours (21 hours - lectures, 51 hours - practical classes) [2].

In accordance with modern requirements, students are given more time for independent work. This requires the development of appropriate didactic tools and the use of appropriate forms and methods of work, and control over the development of competencies. As such a didactic tool, we have developed a workbook for independent extracurricular and contact work of students. The workbook contains tasks for independent extracurricular work of students (IEWS) in the form of tables that reflect the basis of the practical lesson and templates for the design of independent contact work of students.

The tasks presented in the workbook contribute to a more effective mastering of theoretical material and instill the ability to obtain the necessary data with the help of reference literature and Internet resources. The advantages of using workbooks are the objectivity and time savings of teachers at the stage of monitoring the results of independent work of students. Filling out ready-made templates when processing the results of students' independent work saves students a lot of time, while simultaneously forming the skill of correctly filling out accounting documentation. To control the level of development of competencies in the study of the discipline "Fundamentals of medicinal plant growing", a fund of evaluation tools has been developed. Control is carried out in the form of an oral survey on questions for self-training, test tasks and situational tasks.

The process of teaching the discipline of the variable part "Fundamentals of medicinal plant growing" is aimed at developing students' understanding of the importance of the issues of rational use of medicinal flora and additional competencies to expand the scope of future professional activity.

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### **DISTANCE EDUCATION FOR RESIDENTS IN THE COVID-19 ERA**

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**Annotation.** For two years, the COVID-19 pandemic has become one of the most difficult in terms of medical training for resident doctors. The new requirements of primary specialized accreditation make competency-based learning more important. The aim of the research was to study a mentor-based curriculum with on-the-job examinations in the final year of the residency programme. Resident doctors who had completed training on the modified curriculum on satisfaction and competence were interviewed.

Respondents found mentoring and feedback very positive in supporting their learning success. Most would like to have more structured feedback. Workplace evaluations were useful and meaningful. Resident doctors felt confident and prepared for initial specialized accreditation. There was also a high level of satisfaction and advice for resident physicians in the final year. Thus, the mentoring-based curriculum, with integrated assessments in the workplace, has led to high overall satisfaction and an effective improvement in the quality of training, and supports the communication and social skills of resident doctors.

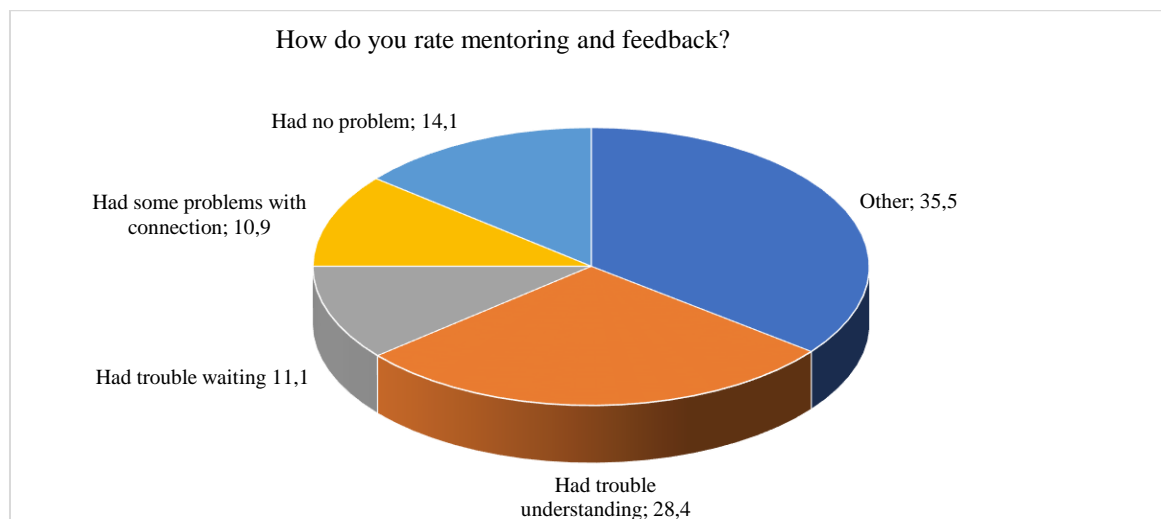
**Keywords:** higher medical education, residency in anesthesiology and resuscitation, COVID-19, pandemic, development of educational programs



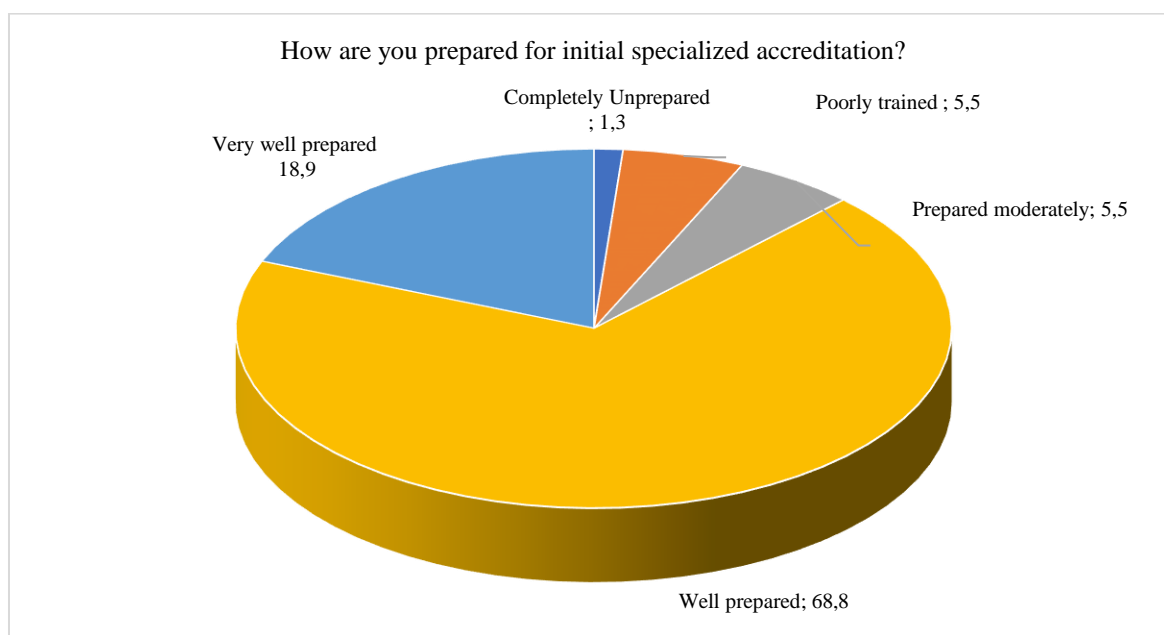
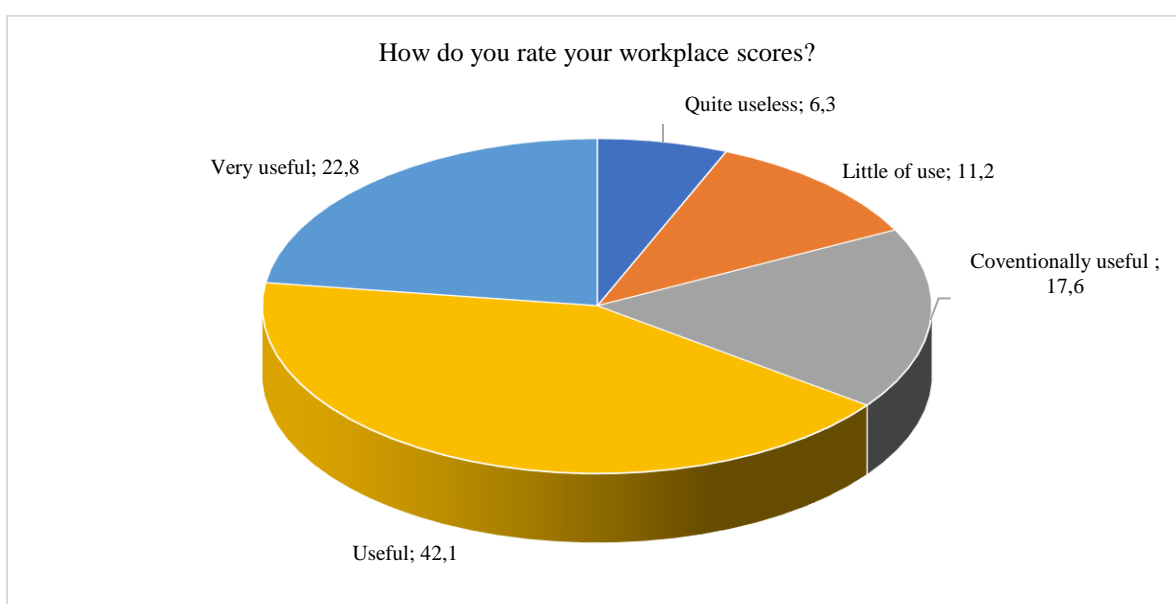
The last two years have become one of the least structured and standardized in medical education. Resident physicians have noted a lack of methodological guidance, mentoring and feedback, performing non-core tasks as interns in COVID-19 area hospitals. The introduction of rules of primary specialized accreditation makes medical education based on competence essential. During the pandemic, the Intensive care Department of the Teaching Hospital became the medical center that took care of the most severe patients with COVID-19. The hospital has received a large number of interns in anesthesiology and resuscitation, who are both certified anesthesiologists and doctors of other specialties. Our resident doctors have a unique opportunity to lay the necessary foundations for the educational base that will serve them in the future. Their skills are redistributed during a pandemic, but it is necessary to achieve their educational goals. The Residency Program aims at continuing education between clinical duties and teaching, especially in the distance-learning environment. Our resident physicians possess a unique set of skills suitable for rapid adaptation to the care of severely ill patients as advanced clinicians, including respiratory management, respiratory support, and analgesic, catheterization of arteries and central veins, monitoring devices, inter-hospital transfers of patients, electronic medical records and much more. But clinical training is one of the most important aspects of residency training, and anesthetic skills are more difficult to acquire when routine surgery is cancelled to improve the use of hospital resources and medical personnel. Some aspects of clinical knowledge such as regional anesthesia, single lung ventilation, open-heart surgery and neurosurgery, multimodal and low-flow anesthesia, require clinical use and have been adversely affected during limited scheduled surgery, which does not suffice the minimum number of accreditation activities required to complete the residency.

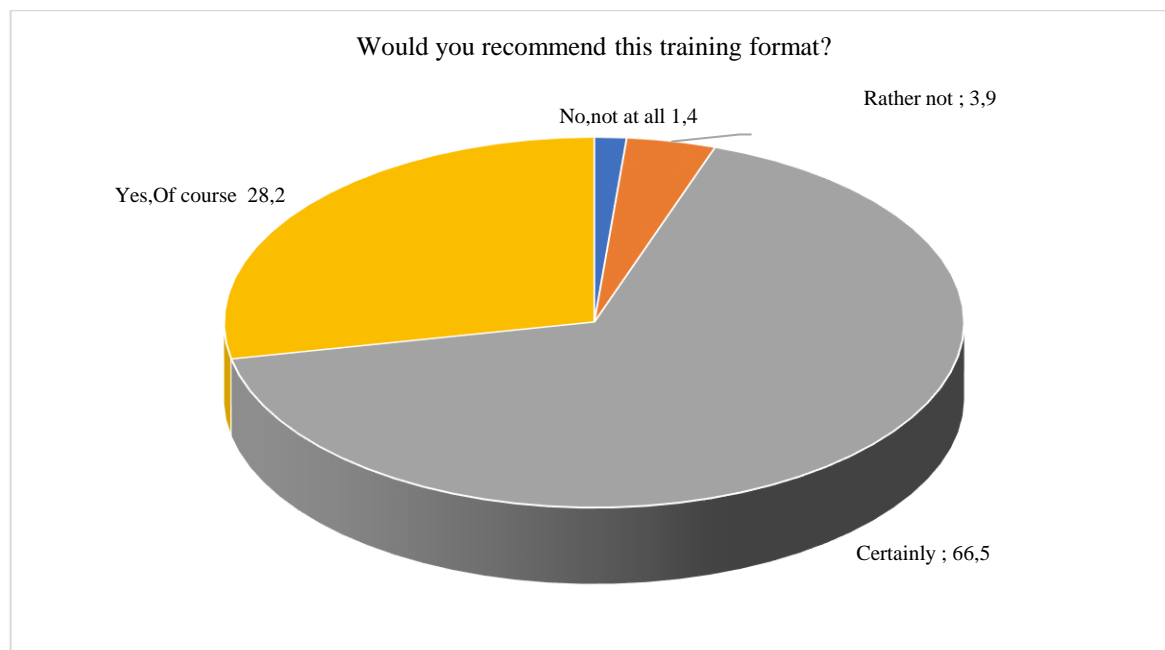
New resuscitation and intensive care environment required distance virtual training and a mentoring-based curriculum with on-the-job examinations. A key component of improving the skills of resident physicians during the pandemic was the development, implementation and implementation of a mentoring video curriculum through an educational forum using the Microsoft Teams platform. The online format allowed resident doctors to participate whenever they were on duty. Teachers regularly requested confirmation of online participation from resident doctors. While the virtual learning environment is no substitute for face-to-face learning, senior physicians have provided training in the form of clinical assessment and direct observation of the procedural skills of resident physicians who were less familiar with anesthesiology and helped to achieve 10 competencies, specific to the discipline, including proper putting on and removing of personal protective equipment and infectious control when treating patients with COVID-19. To ensure quality and some degree of standardization in the curriculum, resident physicians had a list of skills and competencies. Modelling has been instrumental in improving learning, strengthening critical thinking skills, and complementing clinical learning. On-the-job evaluation of these competencies and real-time feedback were provided in the form of weekly, one-on-one checks with residency professors.

By July 2021, 57 end-of-year graduates in total who had completed the revised curriculum had been interviewed about their satisfaction and competence. The questionnaire was modelled on the Kirkpatrick model, which evaluates the effectiveness of the curriculum at four levels - reaction, learning, behavior and results. The response rate was about 75% (per cent). The competency assessment provided focused, demand-driven and high-quality training for resident doctors. They found mentoring and feedback very positive in supporting their learning success (score 8 out of 10). Despite this feedback, the majority (85.9% per cent) wanted it to be more structured. Workplace evaluations were useful and meaningful (64.9% per cent). Resident doctors were trained for primary specialized accreditation (87.7% per cent). High levels of satisfaction (rating 9 out of 10) and high level of recommendations (94.7% per cent) were reported for the curriculum (Fig. 1).



**Fig. 1.** Survey results of resident doctors





In conclusion, the COVID-19 era has allowed us to rethink the role and importance of resident doctors in the health system. The rapid transition to distance learning is evident in the retraining of resident doctors to acquire a range of skills. The mentoring-based curriculum, with integrated assessments in the workplace, resulted in high overall satisfaction and an effective improvement in the quality of training, and supported communication skills. Resident anesthesiologists have special skills that allow them to be key employees of treatment teams. For this reason, their further education is important. It is essential that the University have plans to train resident doctors in future health and community challenges.

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## **EXPERIENCE IN DEVELOPING OF CREATIVE ABILITIES OF INTERNATIONAL MEDICAL STUDENTS**

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The profession of a doctor is the profession of a person of flexible consciousness. Therefore, it is important that students of medical universities do not focus only on the problem of their medical education, but be diversified creative members of society. By the nature of their activities, doctors are those people who have to communicate with different contingents of people. Accordingly, it is sometimes necessary to look for completely non-standard approaches to various patients. After all, if the patient does not trust the doctor, the chances of his recovery are rapidly falling [1, 2, 3].

Thus, medical students are people who must be able to think creatively and make non-standard decisions. In the classroom, we are faced with the problem of language barriers and understanding when teaching foreign students. Therefore, it is very important to clearly distribute tasks when performing a particular job. In our opinion, one of the important areas in teaching students is spiritual and physical development, creative non-standard thinking.

During the student period, the formation of personality and the formation of competence take place. It is during this period that the realization of creative potential is necessary. This creative reserve in the future will become the impetus for the implementation of scientific discoveries.

A creative person is a person with a flexible mind. This is a person who is able to find a way out in a hopeless situation, to offer a solution in the treatment of incurable diseases, who is able to take a different look at the problem, and therefore find a non-standard solution to it.

Alimov A.T. wrote that the development of creative potential in student youth contributes to the formation of an outstanding personality. This person will be competitive in the professional environment and capable of providing promising dynamics in social progress [4].

The word creativity comes from the English create - to create, to create. Creativity is the creative ability of a person. A creative person is ready to create and, just as importantly, to accept fundamentally new ideas that may deviate from traditional patterns of thinking. Creativity is part of being gifted, a special ability to solve problems within static systems. The American psychologist A. Maslow defined creativity as a creative orientation that is innate in everyone. But it is lost by the majority under the influence of the existing system of upbringing, education and social practice [5, 6].

Creativity is a personality characteristic that determines the impact on creative productivity, regardless of the field of activity. A creative person is a generator of ideas and non-standard ways of solving problems.

In order to develop creativity, it is necessary to develop the creative competencies of students. There are many trainings for the development of this part of the students' abilities that students need to go through. We will dwell on one of them in more detail.

Method of lateral thinking. This technique was developed by Edward de Bono and is aimed at developing non-standard thinking. There is an opinion that creativity and creativity are the opposite of logic. Out of the box thinking is often referred to as a form of intuition or inspiration. However, when making a non-standard decision, thoughts are not in a state of chaos, as in mentally ill people, the process of creative thinking is controlled and can be controlled.

The concept of lateral thinking is the concept of lateral, i.e. close to standard thinking. Therefore, as a training for lateral thinking, you need to perform a certain sequence of actions:

Focus selection. Those. choose the area of activity from which we will start. In neuro-linguistic programming, there is a special concept for finding the right focus, which is called

framing - this is a look at a thing in a new way. There are many ways of framing, for example: redefinition is the replacement of one of the words used in the formulation of a belief with a new word with a different connotation, or substitution of concepts - replacing one phrase with a similar one, but with a different meaning, etc. The use of framing allows you to take a more focused look at the problem and understand its essence. For example, the patient is late for the doctor. In response to a dissatisfied doctor's comment, the patient uses the "intention" technique: "I am very pleased that you care so much about my health." This shifts attention to another problem.

Generation of lateral tear or pattern break. Most people think in a stereotyped way, and, accordingly, they look for standard exits from situations. It is the break of the pattern that breaks the logic of thinking and contributes to the birth of new ideas. To do this, you need to build a statement about the focus that will change the focus in some way. To do this, several techniques are used: replacement, inversion, union, hyperbolization, exclusion, reorganization. For example, we ask a student to submit a picture of Doctor and Patient. The picture will be approximately the same - the doctor is sitting at the table and listening to what the patient is saying or the doctor is auscultating a lying / standing patient. Next, we propose to use, for example, inversion. In this case, the patient will listen or auscultate the doctor, which will change the essence of the picture but will not change its title "Doctor and Patient".

Establishing a connection. After the second stage, when we got an absurd picture, we need to find something logical in it. It is at this stage that real creativity takes place, and we get something new. This will help develop creative imagination. For example, a doctor shows a patient how the heart should beat, because his heart is all right. In this context, the picture no longer looks so absurd. There are many ways to develop creative thinking. Imagination is key in this training, it contributes to quick and creative problem solving.

Very close to creative imagination and useful in stimulating creative thinking is recreative imagination. Recreative imagination is the ability to "finish" things that were not perceived as whole before. In this case, the knowledge already available to a person about these things is used. At the same time, these images are distinguished from memory representations by a great variety, flexibility and dynamism of elements. Simply put, recreative imagination, unlike creative imagination, is more consciously based on previous experience.

Another side that needs to be taken into account is associative thinking. This thinking contributes to the development of memory, which is important in our profession. Associative thinking is a way of memorizing new material by linking it to already known facts or events. To train this type of thinking, it is necessary to find associative connections.

Thus, one of the main components of the successful professional development of a person is creative potential, which must not only be developed, but also encouraged and supported by students in the process of studying at a university. And for the development of creative abilities, various methods and their combinations can be used.

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## **TEACHING THERMAL TRAUMA TREATMENT**

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The significance of the item connected with a frequency of burns and severe consequences in all the countries and have no tendency to decrease(2). Virtually placing a student in a situation of various physicians on a stages of burns we can obtain the notion of step by step treatment of the pathology(3).

Burns, urgent professional help, surgical and therapeutic activities

Burn – the irreversible damage (necroses) of tissue as result of high temperature application.

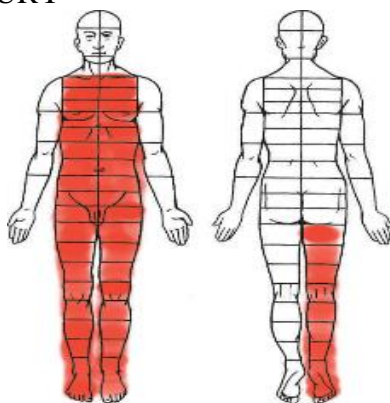
The difference is the depth of necrose: I – epidermis (red, oedema and pain), II – derma (red, pale deepithelialized surface) and III – derma + adventives and deeper tissues. For us, as soon as we are physicians, the main difference is between I, II – superficial – (can be skin over itself). And III – deep burn scab (after debridement, heal only by means of operation - auto skin plastics).

Etiology. Its logical to represent it according the age. And so are perinatal burns – iatrogenic, by unproper warming «hot water bottles», infra-red irradiators. Then its bath, from 1 to 18 months – during eating (feeding). Beginning 3 years till 60 - males burn more often. 3-5 years electric burns – local like 2 fingers of a hand. If two hands, hand-leg etc. – it's general electric struck – we must check cordial rhythm (no less than for a minute) better E.C.G., check general neurological symptoms – organize propiate medical care and medical transport-hospitalization according the leading symptoms – neurological, cardio- or intensive care units for 48-72 hours observation and correction. Another case is short circuit flash – generally burns of hands, face and retina! Explosion – mostly the uncovered surfaces and respiratory tract! Specific are the vacuum explosions (like bombs used in Beirut in 60-70-s and gas nearby Ufa – Ulu-Telyak 1989) that causes micro ruptures of solid tissue – brain, liver, kidney cortex with a corresponding clinical consequences.

For physicians, the main characteristics is the area of burned surface. Adults – 15% it's shock! Under 15 years old – 10%, under 3 years 5% of burned surface causes shock (2). Smaller square of burns can also cause shock in cases of deeper burns and specific areas like face, perineum, armpit. Treatment: rehydration ( $V_{ml} = S\% \times M_{kg} \times K$  (where V- first day volume i/v.; S- % of burned area; M – weight of patient; K – coefficient, correlated with clinically level of shock: 1-compensated, 2-subcompensated, 3-decompensated. Second and third day of shock 1\2-2\3 in ratio for the 1 day of shock; the main guide is arterial pressure stabilization, appropriate diuresis (according age).

Online (or face to face): every student receives one question from the offered list and either prepare and announce it during the lesson in a clinic or send on line. In this article data is the reference to the lecture – the main resource for the students to answer.

## 1. THERMAL INJURY



**Fig.1.** the Dolinin's scheme for estimating the square of burned surface, every part=1% of body surface

### BURNS

#### 1. First aid:

- definition (burn is...)
- first aid- algorithm in a city (15-60 min. until ambulance arrival) in Ufa;
- algorithm in the country «24 hours from professional med/aid»

#### 2. Ambulance: topical - the wound dressing and i/v treatment.

3. Surgeon № 1: period of SHOCK - the first surgical manipulations, necrotomy, bondages. TOXEMIA – early radical excision.)

#### 4. Intensive care physician-prescriptions for trained nurse

$$V_{ml} = S\% \times M_{kg} \times K$$

V – the volume of i/v infusion for the first day of shock;

S – area of the burn surface %;

M – the weight of the patient kg;

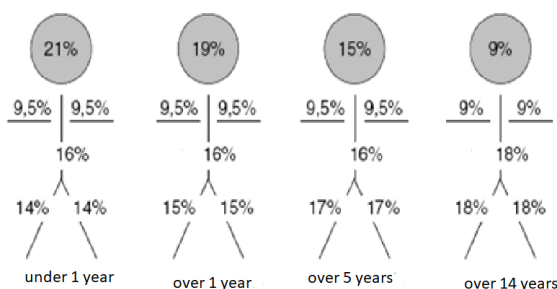
K – coefficient correlating with a clinical degree of shock – (compensated-1; subcompensated-2 or decompensated-3) coefficient correlated with the degree of burn shock: I-light (compensated), II-severe (subcompensated), III-extremely severe.

5. Surgen № 2: SEPTICOTOXEMIA – bondages, chemical necrectomia; autodermodermy by free, split, perforated transplants, specific immobilization of burned extremities; bondages with topical stimulators of reparation.

6. Therapeutist - treatment of burned patients: «Kurling ulcers» (prophylaxis and drug treatment); press dressing, physiotherapeutics and balneology of cicatrix restrictions - data and technics of operations.

#### 7. Mass, cluster trauma – index by Frank sorting.

8. Frost bite (Congelation) – definition, treatment: method by Golomidov; per arteria perfusion



**Fig.2.** Lund Browder scheme

After 3 days 15-21 days of toxemia (partially destroyed tissues toxins absorb) – treatment per vein desintoxication. Radically can be improved by debridement. Operation must be performed by combustiologist on 4th-20th day burns disease. Caution! Debridement of 10% surface cause blood loss about 2 liters and, vital, pain nerves are concentrated in derma.

If the treatment conservative the main goal is to dry necrosis thus restricting intoxication and suppuration. The latter will appear inevitably – it means the beginning of septicotemia. Treatment – desintoxication and antibacterial (antibiotic), this period demand restore of blood – one and only way – transfuse blood. Typically if not radical, then step by step removing following auto tearing-away. Frequent bandage anew with antiseptics in water soluble substances. When the puss is withdrawn the purpose will be to heal the defect of skin. Either conservative, +stimulation of regeneration, if the burn superficial. If not – the only way of treatment – autodermoplasty with a free(flat) autoskin graft. After that treatment aimed on stimulation of regeneration with a spare bandage. The contradiction is that to stop suppuration you must frequently anew bandages, but that causes damage of the wound tissues. You can overcome it using net-like non adhesive materials or biological temporary materials like xenotransplants. Methods of creating gnotobiotic, nonmicrobial area around the wound or the hole patient. Our experience make us believe - that is the future of antimicrobial surgery. As for antibacterial treatment, beside generally accepted, we believe in a selective decontamination methods aimed on restoration of patient's biocenosis(1).

It's important right from the beginning of reparation to consider a specific immobilization of burned area. The main idea is hypercorrection to prevent adductive contractures.

Nevertheless, a considerable amount of patients must be treated by physiotherapy (ultrasound, electrophoresis resolving ferments, KJ) balneology – hydrogen sulphide -like Macesta (Caucases) or Krasnousolsk (Bashkiria). Some cases need operation to restore adduction of extremities. The optimum time about a year.

### **Frost-bite**

The irreversible damage of tissue as a result of local blood circulation failure owing to cool dawn. Frost-bites occurs while low temperature exposing extremities with improper dressing, tight boots and even can occur under positive temperature – “trench foot”. The optimum treatment of severe frostbites is per arterial implementation of saline, glucose solutions with preparations restoring peripheral blood circulation (like spasmolytics, heparin, aspizole, antioxydants, vitamins).

If you cannot carry out this scheme, apply the Golomidov's method – isolating frost-bite parts from outside warming, so that the warm would come only with blood fluid and oxygen.

Thus coworking professionally, we can improve the level of treatment and benefit the consequences of thermal injury.

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## INTERNATIONALIZATION OF MEDICAL EDUCATION

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Internationalization of higher education is currently an important trend that contributes to the development of international relations. Strategies and main directions of internationalization of education are being developed at the state level, which allow solving important political, economic, cultural tasks that ensure academic development and the development of the education system. The state policy of the Russian Federation in the field of internationalization of higher education requires entry into a single global educational space, compliance of domestic education with international quality standards. Medical universities, including BSMU, are actively involved in the internationalization of medical education. The main directions of internationalization of higher medical education are:

- creation of joint basic professional educational programs;
- creation of basic professional educational programs and training courses implemented in English;
- creation of basic professional educational programs focused on the training of specialists in demand on the international labor market;
- attracting foreign students at all levels of higher professional education;
- international academic mobility of students and members of the teaching staff;
- participation in major international conferences, forums, congresses, conferences, master classes in the field of science, medical and educational activities;
- creation of cooperation agreements with foreign educational organizations.

For the successful promotion of BSMU in the international market of educational services, the university faces the following tasks:

- to improve the quality and diversity of educational services and products that meet modern requirements, motivation for professional development and growth of the university teaching staff,
- activation of partnership with leading medical (including foreign) universities, professional associations, international organizations
- stimulating academic mobility of students and teachers in order to exchange and gain research and teaching experience.

In order to successfully implement the tasks set for the internationalization of the educational process at the university, it is important to pay attention to a number of issues related to the analysis of the world's best practices in the field of medical education, to develop criteria for attracting talented foreign students to priority areas of training in programs, specialty, master's, bachelor's, residency, postgraduate studies.

Internationalization of medical education should also include familiarization with the health systems of countries with both a high level of well-being of the population and countries with lower-middle incomes. Taking into account the current situation in the field of healthcare, the internationalization of medical education increases awareness of the problems and state of international healthcare, allowing for fruitful international cooperation, intercultural communication, and exchange of experience.

Each area of BSMU's activity involves the development of international cooperation. Thus, the University has established an International Activities Department. The tasks of the Department for International Activities are:

- establishment and development of effective mutually beneficial partnerships with leading educational and scientific institutions of the world, preparation of bilateral and multilateral cooperation programs in the field of science and education;
- development of a strategy for the international activities of the university and its integration into the world educational, scientific and medical systems;

- expansion of academic mobility through the activation of international contacts, exchanges students and teaching staff at the interstate, interdepartmental and interuniversity levels;
- assistance in organizing joint research, therapeutic and educational projects with foreign institutions at the university and abroad;
- involvement of interested enterprises and organizations in the development of international relations of the university;
- organization of reception of foreign delegations, specialists, teachers, students, scientists, interaction with government agencies on the issues of the stay of foreign citizens invited by the university on the territory of the Russian Federation;
- accompanying foreign lecturers and students from among foreign citizens in case of emergency.

Currently, the University is actively developing international cooperation in the field of science, academic mobility of faculty and students, organization of international conferences and master classes, as well as reception of delegations. The development of internationalization of medical education opens up broad prospects for the development of all areas of the university's activities, contributing to the progress and promotion of the university at the world level. In higher education, there is a convergence of problems, trends, tasks and goals, which makes us forget about national and regional differences and specifics. There is an intensive universalization of the content of education, in the conditions of the modern information and digital revolution. The internationalization of higher education contributes to the dynamic development of the process of integration of educational systems. This process puts forward new requirements for the organization of the educational process, sets new management and planning tasks, requires significant investment.

## **POSSIBILITIES AND PROSPECTS OF TEACHING TRAUMATOLOGY AND ORTHOPEDICS TO FOREIGN STUDENTS OF A MEDICAL UNIVERSITY**

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**Annotation.** The principles and methods of teaching clinical disciplines using the language of an intermediary are described. The communicative, linguistic and methodological features are studied.

**Key words:** education, traumatology, orthopedics, foreign students, organization of education.

**Introduction.** Currently, Russian universities are actively involved in the process of international integration. The number of foreign students studying at Russian universities is growing, both in Russian and using the language of an intermediary, which is most often English. At the same time, students from abroad are trained in separate groups using adapted curricula and using new methods. The problem of methodological support of the educational process of foreign students has recently become the subject of research by many authors. Researchers note a number of features of the teaching process for this category of students. V.V. Skvortsova et al.[1] reports that foreign students, on the one hand, do not have a high level of spoken Russian speech and writing, on the other hand, they often have difficulties with the English language, due to the presence of a strongly pronounced accent, which ultimately distorts the adequate perception of information by the teacher. A.V. Komushenko et al. [2] believe that in such situations, verbal communication in the teaching process should be minimized and the principle of imitation (“do as I do”) should be used. In the learning process, relying on a non-verbal, visually structured component, as the most understandable and common for different educational and language systems, moving on to the verbal component on its basis, one can also form communicative competence. Thus, visibility here acquires a new

function - participation in the formation of communicative competence of foreign students, thereby realizing the principle of communicativeness [3]. due to the presence of a strongly pronounced accent, which ultimately distorts the adequate perception of information by the teacher. A.V. Komushenko et al. [2] believe that in such situations, verbal communication in the teaching process should be minimized and the principle of imitation ("do as I do") should be used. In the learning process, relying on a non-verbal, visually structured component, as the most understandable and common for different educational and language systems, moving on to the verbal component on its basis, one can also form communicative competence. Thus, visibility here acquires a new function - participation in the formation of communicative competence of foreign students, thereby realizing the principle of communicativeness [3]. due to the presence of a strongly pronounced accent, which ultimately distorts the adequate perception of information by the teacher. A.V. Komushenko et al. [2] believe that in such situations, verbal communication in the teaching process should be minimized and the principle of imitation ("do as I do") should be used. In the learning process, relying on a non-verbal, visually structured component, as the most understandable and common for different educational and language systems, moving on to the verbal component on its basis, one can also form communicative competence. Thus, visibility here acquires a new function - participation in the formation of communicative competence of foreign students, thereby realizing the principle of communicativeness [3]. [2] believe that in such situations, verbal communication in the teaching process should be minimized and the principle of imitation ("do as I do") should be used. In the learning process, relying on a non-verbal, visually structured component, as the most understandable and common for different educational and language systems, moving on to the verbal component on its basis, one can also form communicative competence. Thus, visibility here acquires a new function - participation in the formation of communicative competence of foreign students, thereby realizing the principle of communicativeness [3]. [2] believe that in such situations, verbal communication in the teaching process should be minimized and the principle of imitation ("do as I do") should be used. In the learning process, relying on a non-verbal, visually structured component, as the most understandable and common for different educational and language systems, moving on to the verbal component on its basis, one can also form communicative competence. Thus, visibility here acquires a new function - participation in the formation of communicative competence of foreign students, thereby realizing the principle of communicativeness [3]. as the most understandable and common for different educational and language systems, passing on its basis to the verbal component, one can also form communicative competence. Thus, visibility here acquires a new function - participation in the formation of communicative competence of foreign students, thereby realizing the principle of communicativeness [3]. as the most understandable and common for different educational and language systems, passing on its basis to the verbal component, one can also form communicative competence. Thus, visibility here acquires a new function - participation in the formation of communicative competence of foreign students, thereby realizing the principle of communicativeness [3]. as the most understandable and common for different educational and language systems, passing on its basis to the verbal component, one can also form communicative competence. Thus, visibility here acquires a new function - participation in the formation of communicative competence of foreign students, thereby realizing the principle of communicativeness [3].

Teaching foreign students requires a certain style of presentation of educational material. Phrases and sentences should be concise, with short and precise wording. It is impossible to overload speech with stylistic turns [4]. Given the difficulties of verbal communication between the teacher and students, priority is given to visual images. The principle of visualization is one of the main principles in teaching foreign students [5]. This technique is used in teaching disciplines of various directions. In philological disciplines, the integration of various methods of cognitive visualization into language teaching orients the minds of students to the mode of action, thereby giving them an important tool of knowledge necessary for continuous self-education. Creation of teaching aids and developments, including elements of cognitive visualization is one of the urgent tasks of modern linguodidactics [6]. O.G. Balina [7] also notes that the visualization technique is one of the means of activating the educational process and a way of systematizing and structuring educational information in the study of vari-

ous disciplines. However, some authors come to the conclusion that the visualization method in fact has the least value [8]. O.S. Bulgakov and S.A. Burkova [9], noting the positive aspects of the visualization method, warn against its excessive use. Due to the realities of modern technogenic civilization, the phenomenon of the paradox of the form of psychophysiological protection arises, in which the visualization of information (simplification of its processing) contributes to its better assimilation and reproduction, thereby optimizing the educational process, but at the same time carries elements of degradation. A special place in the research is occupied by the introduction of innovative techniques into the methodology of teaching. The use of a variety of active learning methods arouses students' interest in the educational and cognitive activity itself, which allows you to create an atmosphere of motivated, creative learning and at the same time solve a whole range of educational, educational, developmental tasks [10]. Multimedia technologies make it possible to significantly improve the quality of presenting new material, establish feedback with students and quickly respond to non-standard situations that arise during classes [11]. The problem of finding new methods aimed at improving teaching to foreign students is also relevant for medical universities. In recent years, a number of works have been published on the methods of teaching certain theoretical and clinical disciplines of this category of students in medical universities. [12,13,14,15,16]. T.S. Serdobintseva et al. [17] come to the conclusion that the new multimedia technologies introduced into the teaching of pathological anatomy, using English as an intermediary language for foreign students are a preparatory stage for the transition to a modular learning system, which is effectively used in European countries. E.S. Chernomortseva et al. [18] believe that teaching human anatomy to foreign students requires a combination of traditional and modern teaching technologies. E.A. Logacheva and T.V. Shuteeva [19] in their work provide data that multimedia resources allow students, already at the stage of preparation for a practical lesson, to get acquainted not only with oral material, but also see the methods of neurological and instrumental examination, diagnostic tests, therapeutic measures in patients with various neurological pathologies.

Thus, the development of new methods of teaching academic disciplines to foreign students of medical universities studying using the language of an intermediary, including the use of visualization techniques, is an urgent problem of modern pedagogy.

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# **USING THE MICROSOFT TEAMS PLATFORM FOR THE EDUCATIONAL PROCESS AT A MEDICAL UNIVERSITY IN THE CONTEXT OF THE SPREAD OF A NEW CORONAVIRUS INFECTION**

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**Annotation.** This article presents data from a literature review and own results of work using the Microsoft Teams platform in the process of teaching students, including foreign ones, and op of a medical university in the conditions of the spread of a new coronavirus infection.

**Keywords:** medical university, Microsoft Teams, Covid-19

**Introduction.** In light of the ongoing events related to the spread of various strains of the Covid-19 virus, and the order of the Ministry of Science and Higher Education of the Russian Federation dated March 14, 2020 No.398 "On the activities of organizations under the jurisdiction of the Ministry of Science and Higher Education of the Russian Federation in the conditions of preventing the spread of a new coronavirus infection on the territory of the Russian Federation", especially the issue of technical and methodological support of distance education has become relevant.

**Literature review.** We conducted a literature review using the resources of the scientific electronic library e-library.ru during the years of the pandemic. The following information and communication systems are proposed for use as tools for organizing remote communication: ZOOM – video conferencing provider (<http://zoom.us/>); Webinar – video conference organizer (<http://webinar.ru/>); Skype messenger with video conferencing capabilities (<https://www.skype.com/ru/>); WhatsApp - messenger with video conferencing capabilities for a limited number of users; YouTube is a web service for posting and sharing video messages (<https://www.youtube.com/ru/>) and a number of other less popular [1]. At the same time, as a ready-made solution that satisfies the concept of implementing a sustainable system for providing distance education, it is proposed to use the “Teams” application (an online application for Office 365) from the developer company Microsoft [3]. Microsoft Teams is a corporate platform that allows you to organize teamwork, chat, edit files together, write notes and make appointments. The service was introduced in November 2016. Using Microsoft Teams, you can productively solve a number of tasks facing the team and the entire organization as a whole. The messenger supports collaboration with Word, Excel, PowerPoint, OneNote, SharePoint and Power BI applications [4]. Noting the functional features of the platform, "the following features should be noted: undoubtedly, the main function of Microsoft Teams is to hold meetings and video conferences, during which participants can interact not only through voice and video, but also through chat; important functions are screen demonstrations; convenient is file sharing, which allows you to work together on a specific file; within this platform, you can create event calendars that will be available to all participants at any time, which is very convenient, because the list of events is always at hand" [2].

**The main part.** In our medical university, the organization of educational and methodological work has always been and remains at its best, and therefore the Department of faculty therapy was methodically ready to work in new conditions (the availability of all educational and methodological materials on the educational portal, a large database of visual and illustrative material is "digitized"). The introduction of the Microsoft Teams platform as a distance education tool was carried out in a timely manner and in the shortest possible time. After 2 years, you can share some of your own results of working with the use of distance education technologies (DO), in particular Microsoft Teams.

The lecture is one of the oldest and most important forms of education at the university, however, it involves the presence of a many students in the audience at the same time, which, in the conditions of the ongoing spread of coronavirus infection, limits its use in the traditional format. In accordance with the order of the Rector of the BSMU of Russia Pavlov V.N. "to provide from 01.09.2021, when implementing educational programs, the organization of contact work of students and teaching staff in a mixed format (combining traditional full-time education and training using distance learning technologies)", lectures in the current academic year were continued on the Microsoft Teams platform. This information technology makes it possible to give lectures using a broadcast or a meeting. The broadcast allows you to simultaneously connect a very large number of students (for example, two streams of 4th-year students in the specialty "Medical care" more than 500 people), which is certainly an optimization of study hours. However, the negative aspects, in our opinion, include the lack of feedback from students. The Meeting allows a limited number of students to give lectures (using the previous example - within one stream), however, the undeniable advantage of the Meeting

is the presence of feedback from students, as well as when lecturing in a traditional (full-time) format.

Practical classes at a medical university, especially at senior courses, are held at clinical bases. In the context of the spread of coronavirus infection, especially during the 2020-2021 academic year, a number of clinical bases were converted into the infection hospital departments.

The use of information technologies such as the Microsoft Teams platform opens up great opportunities for implementing not only distance learning, but also organizing the practice of students in the conditions of the spread of the new coronavirus infection COVID-19. With the help of the Microsoft Teams platform, it was possible to maintain operational communication with students, provide information and shared access to files and documents, send messages and announcements to everyone at once at the same time. Students could also send photo and video reports from their workplaces, especially it is convenient when students are undergoing practical training in remote areas of the republic. In addition, Microsoft Teams has such Microsoft Office tools as Power Point, which make it possible to conduct scientific student conferences online in an unfavorable epidemiological situation. You can connect to the platform both from a computer and from a phone, and in general there were no problems when using Microsoft Teams, especially since students have already learned how to work in this program.

It is important to note that the timely implementation of the platform allowed to continue the educational process for foreign students who, due to a few of circumstances, found themselves outside of Russia. From our own experience, we can admit that this fact did not affect the motivation of students to continue their education. Classes were held according to the schedule, students attended both lectures and practical classes. Some of them at home had to travel to the nearest place where there is Internet access for an hour or more.

A separate and very important aspect was the training of residents. It was the residents, especially of a therapeutic orientation, who were at the forefront in the fight against infection. During the practical training of the educational program for residency, the teachers of our department – heads of industrial practice combined distance learning with traditional full-time training by conducting practical classes, seminars and lectures in polyclinic institutions and at the clinical bases of BSMU. Also, the intermediate certification of residents of the 1st and 2nd years of study was carried out in the distance format. Due to the epidemiological situation, the interview with residents included issues of diagnosis, clinic, differential diagnosis and treatment of a new coronavirus infection (COVID-19), taking into account federal methodological recommendations. The practical skills and abilities of residents acquired while working with patients with coronavirus and other respiratory viral infections were also evaluated. All residents by the time of the intermediate semester certification were employed in medical organizations in Ufa and the Republic of Bashkortostan as district doctors of polyclinics of city and district hospitals and assistants to doctors of covid hospitals (during their operation), providing invaluable assistance in the treatment, monitoring and rehabilitation of patients with a new coronavirus infection.

**Conclusions and future prospects.** We can affirmatively say that the timely introduction of the Microsoft Teams platform as a distance education tool in our university allowed us to continue the development of the educational program in a high-quality and affordable manner in the conditions of the spread of COVID-19, including foreign students (both in Russia and abroad); in a medical university, practical classes are replaced by distance education, taking into account the formation of the necessary professional competencies is possible only under certain conditions (pandemics, for example); in the modern learning process, full-time education is impossible without distance learning technologies.

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### **PRACTICE-ORIENTED MASTERING OF THE DISCIPLINE BY FOREIGN STUDENTS**

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*Abstract:* the article considers the possibilities of implementing a practice-oriented approach in the study of the discipline "Epidemiology" by foreign students in order to improve the quality of professional training of specialists in various medical specialties.

*Key words:* competency-based approach, practice-oriented technologies, professional activity, interactive learning.

The process of modern globalization has affected the entire educational system as a whole and opens up new opportunities for students from around the world to receive high-quality professional education. Today, a specialist in his field must clearly meet the professional requirements for him, and be ready for independent and successful activities. In this regard, it is important for university professors, who from year to year to recruit an increasing number of students from among foreign citizens, to improve the quality of teaching the discipline to foreign students. Teachers should be aware of the main problems that arise in the process of teaching foreign students, and how to solve them, which will help make this process organized and effective [1].

One of the significant factors in the development of a highly professional specialist in his field is a competency-based approach to his training, which becomes more practice-oriented. Thanks to the implementation of the competence-based model of practice-oriented training of a specialist in the conditions of education, it is possible to form his readiness for independent and successful professional activity. Competence-based approach to learning also allows to develop the student's personality, creativity, intellectual abilities and value ideas [2,4,6]. The effective implementation of the competency-based approach in teaching involves the widespread use of various interactive forms of conducting classes with students, which is one of the most important areas for improving the professional training of students in a modern university. Compared with other methods, interactive forms of learning are focused on a wider and more active interaction in the learning process, not only between the student and the teacher, but also between the students themselves. The use of various interactive forms of conducting classes contributes to the active involvement of all students in the process of studying the discipline, the exchange of knowledge and ideas, the establishment of emotional con-



tacts between students, and helps to teach productive professional teamwork. Such an approach, of course, increases interest in the discipline being studied, develops the independence of students, helps them to show their individuality in the educational process, allows you to consolidate the already studied material and gain new knowledge [5].

A practice-oriented approach in the training of specialists in medical specialties is actively introduced and permanently optimized by the Department of Epidemiology of the Bashkir State Medical University when students master the discipline "Epidemiology". One of the types of interactive learning, which is actively used by teachers of the Department of Epidemiology in teaching discipline to students of various specialties, is the solution of situational tasks based on scenarios that take place in the future professional activity of a specialist, as well as the performance of various small practice-oriented individual tasks for working with regulatory documents in the field of sanitary and epidemiological welfare of the population.

In the process of solving situational problems, students systematically continue to form universal, general professional and professional competencies. They consolidate the skills of system analysis and interpretation of information, formulating hypotheses and suggesting ways to solve specific situations that require a professional decision of a specialist. The solution of situational problems allows to arouse a steady interest in the discipline among students, activates the cognitive activity of students, organizes their independent work, helps to systematize the knowledge gained, which in general allows you to form the professional competence of future specialists in the course of practical exercises, providing a kind of transformation of cognitive activity into professional [3].

When modeling situational tasks, it is important that the situation reflected in the task be relevant and close to modern realities of life and possible professional situations that a future specialist may encounter in his practical activities, which certainly causes a lively direct interest in its solution on the part of students. Therefore, when creating a set of situational tasks and various practice-oriented individual tasks for foreign students, teachers of the department focus on the features of organizing and conducting sanitary and anti-epidemic measures in the countries where our students come from, a comparative analysis of coinciding and distinctive moments is carried out, attention is focused on causal relationships of the presence of such features. This complex is systematically updated by teachers using up-to-date information on existing changes in the epidemiological situation for various infectious and mass non-communicable diseases in the country and in the world as a whole, as well as taking into account the updating of the regulatory framework in the field of sanitary and epidemiological well-being. Therefore, in the conditions of the modern dynamic development of epidemiology as a science, foreign students study various topics of the discipline as efficiently as possible, master the professional competencies of working with legal documents, prescribing preventive and anti-epidemic measures, which ensures a practice-oriented orientation in the professional training of future specialists.

Such a practice-oriented approach to teaching allows students to more fully assimilate information material in various sections of the discipline, acquire professional skills, in particular, in the application of epidemiological research methods, organization and implementation of preventive and anti-epidemic measures in epidemic foci. The above, of course, has a positive effect on the quality of training of specialists, forming their ability of professional logical thinking in the analysis and synthesis of information about the epidemiological state of the population, in the adoption of the optimal solution of professional tasks for the protection of public health, justified by legal documents.

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## MUSICAL EDUCATION AND COGNITIVE FUNCTION IN INTERNATIONAL ACADEMIC SOCIETY: HOW TO USE IT FOR TEACHING MEDICINE

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**Abstract.** This article contains one of the ideas about making education more effective. We studied how musical skills can correlate with the indices of cognitive functions both in students and in the elderly. Our research data included the results from 200 students and 50 old responders. Obtained results demonstrate that music education has a significant impact on cognitive function.

**Key words:** teaching neurology, cognitive function, international academic society

**Introduction.** Nowadays people are used to image treatments as a period of consuming medicines, many students think that tablets which were prescribed by doctors are the only way to get recover. However it is a fatal error. First of all, the main healer is our organism and responsibilities of doctors are to make appropriate conditions for certain healing process or to supply organism with necessary substances. For these responsibilities doctors often prescribe medicines most of which have side effects and teach students to do so. The international paradigm offers that if there is no extra-need for medicines, doctors initially can try unconventional treatments. Unconventional medicine or alternative medicine is a collective name for therapies that have in common that they are not studied much classically in medical schools.

One of the most spread diseases among the elderly population is impairments of cognitive function. Cognitive function (CF) is the number of supreme brain abilities, which provide a person with the capabilities of being human. These capabilities are thinking, spatial orientation, comprehension, calculation, education, speech, memory, making decision, ability to explore and some others. The first signs of an abatement in these abilities could include impaired attention and memory. If the condition continues to worsen, it can cause the manifestation of cognitive degradation sings. Eventually it can lead to dementia. Majority confuse cognitive function with intelligence. Intellect from Latin language «intellectus» that means «perception», «understanding», «reason» or «mind» — level of psyche, which includes abilities of realizing, abilities of learning and remembering based on experience, using knowledge to make opportunities and to control environment. Ability to realize problem and find the solution, which includes cognitive abilities such as: feeling, perception, memory, thinking and imagination. In order to show difference between CF and intellect, we can image, that if intellect is a building, then cognitive function is a fundament of this building. It means without healthy CF you cannot increase your intellect level.

One might wonder, «Which factors lead to worsening of CF?», «Which factors lead to strengthening of CF?», and «How to keep CF healthy?». CF starts the development from the birth of child and continuous until age 19-20. Neurological and psychological diseases during period of CF`s development can cause the cognitive dysfunction. Nevertheless there are lots of factors and activities which strengthen the CF. Five factors which positively influence to CF, were chosen and impact each of them was studied. They are «Musical education», «Lan-

guage learning», «Reading literature», «Mathematics» and «Quality of sleep». By training these factors until elderly age, one can keep her CF healthy.

**Purpose.** To study influence of musical education on cognitive function among youngsters and elderly population.

**Material and methods.** Musical education method represents impact of practicing on musical instruments and assimilation of musical sciences. This method can be included into the management of different disorders as an active method. Unlike the passive method, in this method a patient plays melody herself. Consequently, patient training with musical skills takes a very long time and according to this, treatment is carried out very long. A good solution to this problem could be the addition of practical music lessons in the school and university programs. The musical skill which learned before adulthood will accompany a person all her life. In old age, this skill can become of the main factors for keeping healthy CF. However each of these factors should be proved by research in order to recommend this method to the patients with cognitive impairments. For the research, 200 students aged 15 to 19 and 50 seniors over the age of 60 were tested. One hundred out of our 200 students had musical skills and the other half had not. Among 50 seniors, 25 were musicians, the rest were ordinary old people. We used classical MoCA test which is widely used all over the world for cognitive assessment.

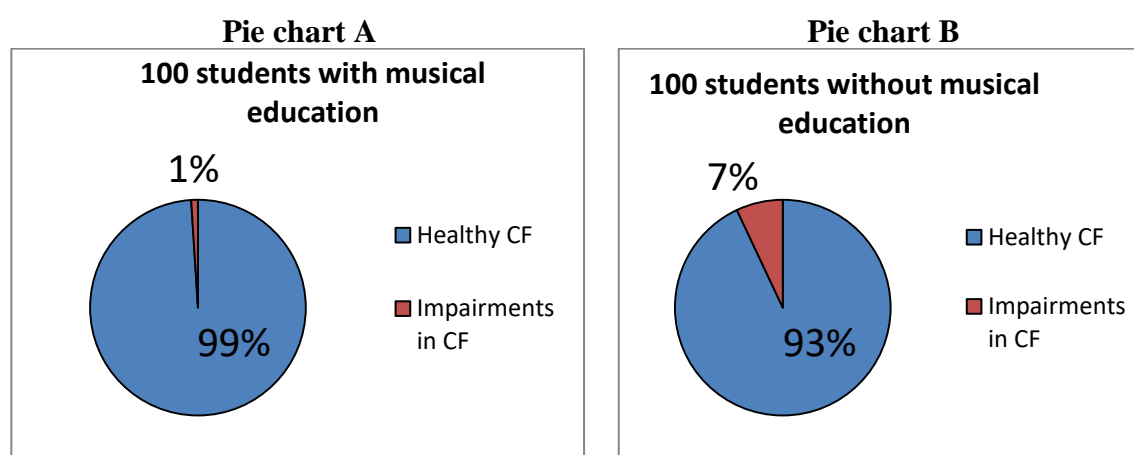
Test divided into 8 stages, each successfully completed stage gives the points. The maximal number of points that was possible to achieve was 30. If the number of total points is less than 26, it means that tested person has a impairments of CF. In the case, when the total score is less than 18, we can think of dementia in a responder.

**Results.** All obtained data were compared based on their features. Pie charts (Pic.I), (Pic.II) show statistic of research based on results.

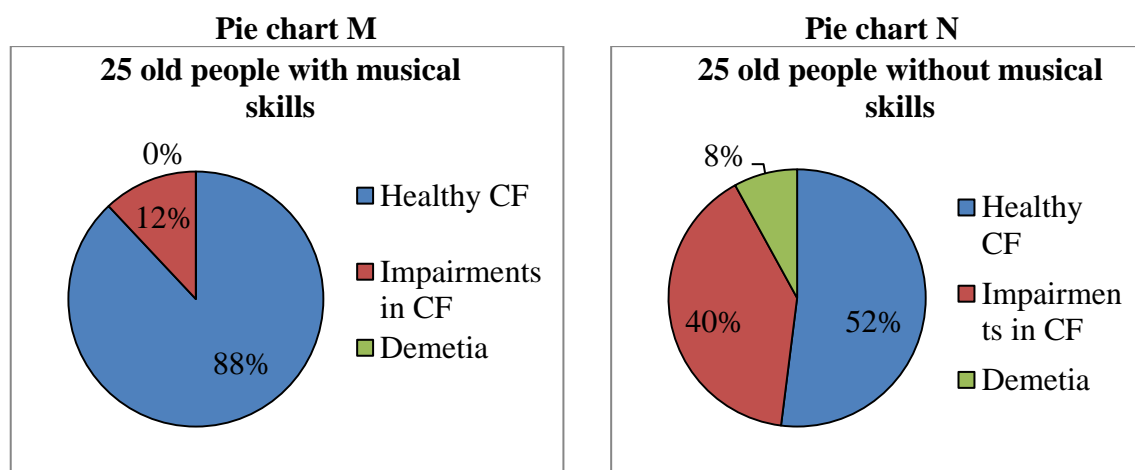
Pie charts A and B demonstrate the ratio between students with absolutely good CF and students with slight impairments of CF. Pie chart A is the ratio among the students with musical education and another pie chart is the ratio among the students without musical skills.

Percentages of pie chart A show that 1% out of 100 students with musical education had impairment in CF, and other 99% are students with healthy CF. In pie chart B, there can be observed significant changes. Percentage of students with cognitive impairments increased up to 7%, consequently percent of healthy students equals to 93.

Based on percentages, by 6% there are more students with cognitive impairments among the students without musical skills. So, the difference is not so considerable.



**Fig. 1.** The indexes of cognitive impairments among students



**Fig.2.** The indexes of cognitive impairments among elderly population

These two pie charts illustrate the proportion of old people with healthy CF, with impairments in CF and with dementia. Pie chart M presents proportion among elderly population with musical skills, meanwhile pie chart N contains data of old people without musical skills. Overall, the main difference between these pie charts is that dementia was not observed in our study, among old people with musical skills. In pie chart M, there are two indexes, index of seniors with healthy CF which equal to 88% and rest of percentages belong to group of old people with cognitive impairments.

Next pie chart N, demonstrates considerable changes by comparing with pie chart M. Index of dementia, which was equal to 0, raised to 8%. Likewise index of dementia, index of cognitive impairments had experienced perceptible increase. Compared to pie charts M and N, the index of cognitive impairments increased by 28% and reached 40%. Consequently, rate of healthy CF slides from 88% to 52%.

**Conclusion.** Taking to account all aspects, it can be concluded that musical education could be one of the unconventional treatments which considerably impact the CF.

The best way to use method of musical education is to incorporate practical music lessons to syllabus of schools and universities, including medical schools. Firstly, as was mentioned earlier, healthy CF will lead to increasing intelligence which is one of main purposes of the students. Secondly, all students, who learnt musical skills, in old age will probably have less danger of cognitive impairments and dementia. It is especially important when we teach students from different countries in international academic society.

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## FEATURES OF TEACHING DISCIPLINE "INFECTIOUS DISEASES" TO FOREIGN STUDENTS

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**Annotation.** The paper discusses results of assessing the quality of teaching and identifying the main difficulties in teaching, the features of teaching infectious diseases to foreign students.

**Key words:** foreign students, teaching, problems, discipline, key competencies, infection diseases.

**Introduction.** Currently, there is a steady trend in an increase in the number of foreign students in Russian universities in the field of education. There is also an expansion in the number of countries sending their citizens to study in Russia.

**Literature review.** The strengths of higher medical education are fundamentality, deep traditions, the formation of high-quality professional skills in the learning process, together with the relatively low cost of educational services, that is attractive to foreign students [1]. At the same time, globalization and growing academic mobility in higher education demand increasing of the quality and level flexibility of educational services [7, p. 132]. The problems of adaptation of foreign students to higher education in Russia are reflected in the works of various domestic authors. For example, the problems of teaching foreign students at a Russian university are revealed in the work of T.T. Kapezina [5]; the problems of adaptation of foreign students to study in group and the study of the socio-psychological climate in it are reflected in the works of M.A. Ivanova, N.A. Titkova, V.P. Trusov, N.D. Shaglina [3; 4]; the psychological and pedagogical aspect of teaching foreign students in Russia is presented in the work of O.A. Yamshchikova [11]; the national psychological characteristics of foreign students and their account in pedagogical communication can be found in the studies of M.A. Ivanova and L.P. Tsokol [2; 10]; the problems of adaptation of foreign students in Russia are considered in the work of E.V. Klyushnikova [6]. The features of the organization of foreign students training in Russian universities and the key competencies of the teacher in the framework of the organization of the process of teaching foreign students are presented in the works of T.R. Rakhimov [8]. According to these studies, the main difficulties of foreign students are related to the educational and cognitive processes and the language barrier. And the key competencies of the teacher are: communicative; socio-cultural; informational and professional competencies in his subject area.

**Materials and methods of research:** We conducted a study for assess the quality of teaching and to identify the main problems in teaching foreign students. In our study, a survey method was used, in which 100 5th-year of education students who completed the training at our department. It was hypothesized that the main problems in the learning process are the language barrier, a large amount of information, the need for knowledge of related disciplines. Also there were questions concerning the accessibility, usefulness and interest of classes, the possibility of applying the knowledge gained in practice and evaluation of the teacher's work in the questionnaire.

**Results and their discussion.** So, 46% of students answered to the question "What difficulties did you encounter when learning?" that it is a language barrier; 32% - knowledge of related disciplines and 22% - a large amount of information.

Infectious diseases represent one of the largest and most significant areas of practical healthcare both in Russia and in the countries which students of our university study from. The peculiarity of the discipline is that each infection has its own etiology, transmission pathways, characteristic clinical symptoms, diagnostic methods, including specific ones, treatment, prevention and monitoring and control after discharge. A student must also possess knowledge and skills of related disciplines – biochemistry, anatomy, pharmacology, patholog-

ical physiology, microbiology, propaedeutics of internal diseases, immunology, therapy, surgery, anesthesiology and resuscitation for successfully assimilate such a large volume of material. At the department, lectures in English using multimedia tools are used to adapt and enter to discipline. Clear, stylistically homogeneous text is used on the slides for clarity. There are highlights in color, italics, underscores and inserts - photos of patients, illustrations from the atlas of infectious diseases, special videos, for example, Osmosis Med Video and others.

The survey showed that almost 100% of foreign students use mainly English-language sources as educational literature - textbooks, portals, websites. This is due to a number of circumstances: the laconic concrete structure of the texts, the greater clarity of the English language and the need to confirm the diploma in their country, where the exam is conducted on the basis of English-language sources.

A significant amount of new information and difficulties in selecting the essence of the material in a foreign language for students in Russian led us to the following way of teaching. For high-quality study of the material, foreign students prepare notes or annotations of practical classes in workbooks. These are brief handwritten notes and diagrams of the infection under study – etiology, epidemiology, pathogenesis, main clinical syndromes, differential diagnostic criteria, medications. Before studying a new topic, key questions are given to the student in advance and materials for self-study or their sources in the library and the Internet are recommended. The presence of annotations on all studied topics necessary for admission to the exam. This technique disciplines the student, teaches is them to concentrate thoughts, highlight the main and is their confirmation of that they work at home and idea on their own.

The available experience shows that the use of various educational films, presentations, atlases has proven their efficacy in practical classes. At the time of their study, students have additional consolidation of the material, and they demonstrate higher results in exams.

Another effective tool for the formation of clinical thinking is the solution of clinical problems. The problem simulates a situation close to the taking case history and examination of the patient in real situation. In the process of solving it, the student must make and justify the diagnosis, prescribe a plan for examination and treatment, as well as conduct a differential diagnosis with other similar diseases. In the question of the proposal to improve the quality of our work, most of the students suggested allocating more time specifically to solving problems. Also, a good way to activate students is to prepare reports and to speak in class or in the form of a presentation, and write abstracts using review articles, current clinical recommendations. In addition, practical skills are practiced in the process of curating patients and analyzing interesting clinical cases.

Due to the fact that in some situations there are no nosology patients, a business game "Cholera" is held in English and Russian during practical classes. During the game, the roles of the patient are distributed among the students. The skill of detecting particularly dangerous infections and the algorithm for carrying out anti-epidemic measures in case such a patient is detected on an airplane, at the airport, in a polyclinic.

In addition, the department implements a modular (nosology) approach for working with foreign students – a wide set of modules has been created from which individual programs can be compiled, taking into account the needs and abilities of a group of students.

Practical classes are conducted in English and Russian. Knowledge of the Russian language is important for the student both in the classroom and during clinical practice in hospitals. In addition to the need to communicate with colleagues, patients, medical staff in Russia, foreign students are faced with medical diagnostic devices, equipment with a Russian-language interface, laboratory and instrumental research data.

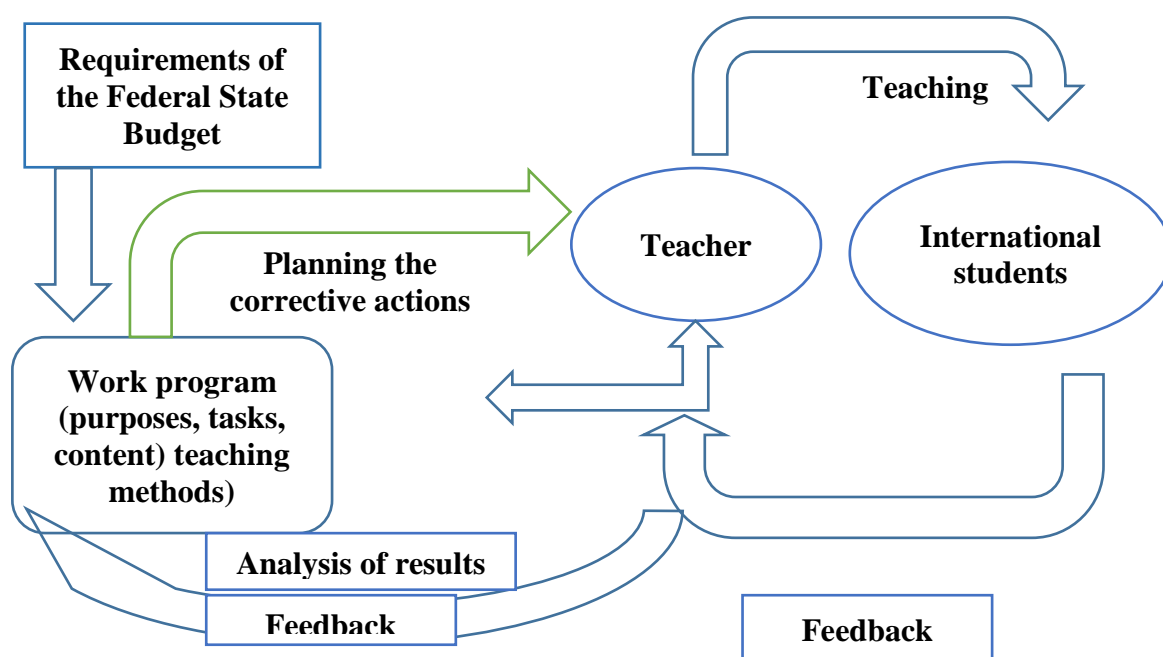
67% of respondents rated the "intelligibility, comprehensibility of the material" at lectures and practical classes as "good" and 33% as "satisfactory". 86% of students, according to the survey results, are going to apply their knowledge in practice. The question: How do you participate in the practical lesson? 58% students said that they actively participate in the discussion, 34% make a report and 8% answer teacher's questions.

A teacher with certain competencies is the key figure and the coordinator in the educational process. Any competence includes knowledge, skills, abilities, as well as personal qualities that a person must possess to solve certain professional tasks. A modern effective teacher should have the following competencies. Firstly, a high level of communicative competence. It includes the ability to speak fluently, understand a foreign language and express yourself in writing. In the course of teaching, it was noted that for most foreign students, English is not their native language, so they speak with a strong accent, which can create a barrier for understanding. It is for this reason that the skill of listening and understanding spoken language in a teacher is especially important. To do this, our teachers try to apply some useful principles when communicating with students:

- Standby principle means to constantly observe students and to note their enthusiasm or distraction in class, to be as close to the student as possible;
- Feedback principle – the principle of building effective feedback with students, that is, to welcome questions and comments from the audience, as well as discussions;
- Principle of KISS (keep it short and simple) – the teacher speaks language, which is understandable to the student, concisely and clearly.

The implementation of the Feedback principle is also an important element in the cycle of continuous improvement of the effectiveness of the educational process. The adaptation of the principles of continuous improvement to the learning process makes it possible to build a two-cycle chain of operational improvement of the learning process of foreign students (Fig. 1).

In this scheme, all elements of the PDCA (Plan-Do-Check-Act) cycle are implemented. The PDCA cycle is a Deming cycle that reflects 4 stages of continuous improvement. The first cycle (teaching-feedback) is aimed at improving the effectiveness of achieving learning outcomes that are embedded in the work program. Feedback here serves as a basis for monitoring the effectiveness of teaching. But when working with foreign students, it is important to analyze the second cycle (analysis-planning), which is aimed at correcting the work program within the framework of the Federal State Educational Standard. Since the country affiliation, culture, educational experience, level of language are very different in foreign students groups, feedback is used to adjust and adapt to the characteristics of the target group within the framework of the Federal State Educational Standard. To improve this important competence, teachers of our university are trained in pedagogics and psychology and special English language courses.



**Fig. 1.** A two-cycle scheme for improving the learning process

Secondly, teachers should have developed socio-cultural competence when the teacher has a good idea of the national psychological characteristics of students. Knowledge of these features takes into account and activates the strengths and eliminates the weaknesses of students.

Thirdly, information competence, that is, the ability to work with new information technologies. To improve in this area, our teachers are trained at Innopolis University.

Fourth, professors should have to improve their skills in this area. To do this, our professors regularly take advanced training courses by infectious diseases, organize and participate in international and Russian congresses, conferences, give consultation or complex cases of infectious diseases in clinics in the city and region, work as part of medical teams all over Russia, participate in consultations and do expert work.

### **Conclusions:**

1. The hypothesis was confirmed that the main problems in the learning process are the language barrier, large amount of information, the need for knowledge of related disciplines.

2. To solve these problems, the department has created conditions for studying disciplines both in Russian and in English. Our professors prepared and used: multimedia lectures, a bank of tests, clinical tasks, videos, training platforms, thematic modules, a business game on especially dangerous infections.

3. To ensure a high-quality educational process, teachers of the department actively share their experience with each other, jointly develop and improve the learning process on an experimental basis; when communicating with students, they apply the principles of Standby, Feedback, KISS; regularly improve their qualifications at courses and training programs in pedagogics and psychology, English, IT-technologies and infectious diseases.

Thus, the Department of Infectious Diseases pays great attention to working with foreign students with different levels of basic knowledge of language. Necessary conditions have been created to achieve the main goal to combine adherence to traditions with advanced educational technologies and to provide high-quality training of specialists.

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## **FEATURES OF TEACHING THE DISCIPLINE "INCLUSIVE COMPETENCE" AT THE DENTAL FACULTY**

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Annotation: The article deals with issues that are relevant when creating an educational and methodological complex for the new discipline "Inclusive Competence", as well as the features of teaching this course to foreign students.

Key words: teaching, inclusive competence, dentistry, foreign students.

According to the new Federal State Educational Standard, the discipline "Inclusive Competence" will be taught in such medical specialties as "Dentistry", "General Medicine", "Pediatrics", etc. The relevance of this discipline is due to the need to prepare dentists for the application of basic defectological education in future professionals dentists, as well as modeling and organizing social and professional interaction with the disabled and people with disabilities using modern technologies. The goal is achieved by acquiring basic knowledge, skills of planning and conducting professional activities with people with disabilities and people with disabilities, as well as skills of tolerant attitude towards people with disabilities and readiness for constructive cooperation with them in social and professional circles.

This educational process is carried out (according to an individual plan) using distance learning technologies and e-learning and is aimed at forming the universal educational competence UK-9 formulated in the Federal State Educational Standard in the following context: the possibility of applying basic defectological knowledge in social and professional spheres. The description of the content within the discipline "inclusive competence" is a scientific discussion and complex reasoning about understanding the phenomenon of inclusion from various positions that take place in modern scientific thought, as well as an analysis of modern forms of working with it, its practical significance and relevance in the activities of a future professional. The necessary conditions for the successful mastering of the discipline "Inclusive Competence" by students are an independent search for scientific literature on topics and participation in training within the framework of the topics stated in the program, active participation in the discussion of problems in practical classes. Knowledge testing is carried out in the form of testing, to which students who have attended all training sessions and successfully mastered the training material are allowed. During the preparation for the lessons, video materials are effective, which help students to better understand the topic of the lecture. Among the topics and titles of practical classes proposed for mastering by students, the following are highlighted: the main defectological terms and the role of inclusive competence, international documentation in the field of human rights and persons with disabilities, international legislation in the field of the implementation of legal status, Russian legislation in the field of protecting the rights of persons with disabilities and equal access to all social infrastructure facilities, strategy for the development of education in the Russian Federation until 2030, the concept of development of education for persons with disabilities until 2030, the main categories of students with special needs, the etiology of various types of dysontogenetic development, patterns of mental development in various types of dysontogenesis, psychological and pedagogical characteristics of various categories of children with special educational

needs, a system of special conditions for the education of students with disabilities, a system of correctional and pedagogical assistance to people with disabilities, the creation of a favorable, emotionally comfortable atmosphere during professional manipulations, taking into account the peculiarities of the psychophysical state, the well-being of persons with disabilities and disabilities, creating conditions conducive to increasing self-confidence.

In particular, when working with patients with learning difficulties, a dental student should know some external and content characteristics that will help him navigate the selection of methods and techniques for interacting with such a patient. Social-emotional disorder (SED) is defined as the inability to build or maintain satisfactory interpersonal relationships with peers and adults; inappropriate behaviors or feelings under normal circumstances; general pervasive mood of unhappiness or depression; a tendency to develop physical symptoms or fears related to personal, social, or school problems.” Autism Spectrum Disorder (ASD) causes delays or problems in many different skill areas. Up to 75% of children with autism also have mental retardation and learning difficulties. Categories of ASD include autistic disorder, Asperger's syndrome, and pervasive developmental disorder, behaviorally manifested by fixed, intense or focused interests, repetitive behaviors such as rolling, tapping the foot, closing and opening doors; in communication, such patients experience communication difficulties due to delayed speech development, difficulty initiating and maintaining conversation, limited understanding of non-verbal communication; in social interaction face difficulties in establishing and maintaining relationships, understanding social interactions. With dyslexia, people with disabilities and people with disabilities have speech difficulties.

Students do not have enough experience in this area, so the task of the teacher is to create a situation in the classroom as close as possible to the real one. This is helped by the calculations of experienced dentists working in specialized clinics. The situational tasks described by doctors in the literature are analyzed. Step by step, students are moving towards understanding the general recommendations when working with patients with disabilities, and then special approaches for different nosologies. Among the general recommendations: treat the disabled person as well as the healthy patient; communication should be equal, natural; communicate directly with the patient, not with the accompanying person; the requirements for the patient should be the same as for an ordinary patient; show patience. Individual forms of work for students are applied. For example, when analyzing special approaches to communication with patients with different nosologies, it is proposed to carry out individual projects aimed at improving the effectiveness of communication and understanding of the situation when working with patients with vision, hearing, musculoskeletal problems and others.

Another problem is the language barrier environment. Students must learn not only the terminology of this discipline, but also realize the moral responsibility for choosing a behavioral strategy and the correct tactful turns of speech. At the same time, it is necessary to give students the opportunity to speak out more independently, to express their thoughts and reflect, to use non-verbal means of communication more actively. When addressing patients with disabilities, it is necessary to weigh all the phrases that we use in a conversation, especially not to use words that can offend or offend a patient with a disability. Choose the correct terminology. In some cases, we may ask the patients themselves how they prefer to be approached. The student must understand that etiquette is especially relevant here, since disability is more a social phenomenon than a medical one.

Inclusive competence belongs to the group of universal competences and, along with professional and general professional competences, must be formed at sufficient and optimal levels. And this means that the student shows a steady interest in the subject of the discipline, strives to perform all educational tasks with high quality, has adequate self-esteem, uses the terminology of the discipline, shows tolerance when analyzing situational problems from real practice, etc.

So, the educational and methodological complex of the discipline "Inclusive Competence" consists of three blocks: legal and software and methodological support of the subjects

of interaction in the social and professional spheres, defectological knowledge about the psychological and pedagogical characteristics of persons with disabilities and disabilities, forms and methods of maintaining tolerant environment, effective interaction of participants in an inclusive environment in the social and professional spheres. A feature of working with foreign students within the framework of this discipline is their active involvement in the terminological field of inclusion, enrichment with the experience of dentists, active communication and discussions on the content issues of inclusion.

## **MODERN TECHNOLOGIES IN PROFESSIONAL MEDICAL EDUCATION**

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In recent years, much attention has been paid to the introduction of modern innovative teaching methods. Traditional teaching methods in the form of lectures and practical exercises do not contribute to the development of students' skills of independent work with literature, do not stimulate the search for the optimal way out of a particular clinical situation. Rapidly changing approaches to the management of patients of various age groups, with several serious diseases, cannot always be presented in a thematic lecture devoted to any one disease, even in the presence of clearly structured modern and evidence-based clinical guidelines. This alienates traditional teaching methods from the specific needs of clinicians, and sometimes makes the educational process itself boring and far from real medical practice, which sometimes requires non-standard decisions. The use of active forms of learning in the teaching of medical disciplines is due to the fact that students must not only acquire certain knowledge, but also be able to apply it in a specific practical situation. These methods promote active interaction between students and teachers. Of great importance in the activation of learning processes is the integrated and purposeful use of technical means, however, the main thing in the learning process is the activity of the student, the desire to become a professional.

Active methods cover all types of classroom activities with students. The practical application of problem-based and developmental learning led to the emergence of methods called "active". From the point of view of pedagogy, active learning methods, as a means of developing students' cognitive activity, can be divided into three groups of methods that are most interesting for use in order to control the formation of thinking. These methods are programmed learning, problem learning, interactive (communicative) learning. During classes, the teacher is required to be much more active and creative than when it takes place passively, in the form of retelling the truths read in books or long known. Interactive methods will have the greatest effect not only teaching, but also educational, when the teacher will influence the discussion not only of statements of a scientifically reasoned point of view, but also by expressing his personal attitude to the problem, his moral position. The forms of participation of a teacher in the discussion of students can be very diverse, but in no case should they impose their opinion, for example, through posing problematic issues that require productive thinking, a creative search for truth. Active teaching methods encourage students to active mental and practical activities in the process of mastering the educational material. The use of such a system of methods, which is aimed mainly at the independent mastery of knowledge and skills by students in the process of active mental and practical activity.

The emergence and development of active methods is due to the fact that new tasks have arisen for teaching: not only to give students knowledge, but also to ensure the formation and development of cognitive interests and abilities, creative thinking, skills and abilities of independent mental work. Active learning differs from ordinary learning, as it activates the mental activity of students by creating special conditions that contribute to this activation, re-

ardless of their desire. The activation of learning can go both by improving the forms and methods of teaching, and by improving the organization and management of the educational process as a whole. They stimulate the cognitive activity of students and are built mainly on dialogue. The skill of the teacher is to use different teaching methods. The use of active teaching methods allows the teacher to create a positive microclimate in the group, which will create an atmosphere of free communication in the classroom. In modern conditions of market relations, there are a variety of approaches to improving the quality of student training in a higher educational institution. Moreover, there was a need to create such didactic conditions that would change the motivation of learning for the better. The basis of the psychological theory of learning is the active cognitive activity of the student himself, leading to the formation of the ability to think creatively, using professional competencies acquired in the process of activity.

One of the active teaching methods in pedagogy is an interactive method, which means the ability to interact or be in a conversation mode, a dialogue with something (for example, a computer) or someone (a person). Interactive learning is, first of all, interactive learning, during which the interaction between the teacher and the student is carried out. Its essence lies in the fact that the educational process is organized in such a way that almost all students of the study group are not only involved in the learning process, but they have the opportunity to understand and reflect on what they know and think.

Each of the active learning methods used has its own characteristics. Discussion as a teaching method is a specially programmed free discussion of the theoretical issues of the curriculum, which usually begins with a question. Moreover, it is more often used in practical classes, when students need to speak out. Sometimes lectures-discussions are also practiced, when the lecturer, in the course of presenting the material, addresses the audience with separate questions that require short and quick answers. A discussion in the full sense cannot unfold at a lecture, but a question that prompted several different answers from the audience at once already creates a psychological atmosphere of collective reflection and readiness to listen carefully to the lecturer's reasoning, answering the discussion question, taking into account the current situation.

The "round table" method is used to discuss a problem from different angles, mainly to increase the efficiency of mastering theoretical problems by considering them in different scientific aspects, with the participation of the views of specialists of different profiles and areas of activity. The "business game" method as a teaching method consists in educational modeling of the situation of the activity that students are to be taught in order to train future specialists to perform the relevant professional functions on models, and not on real objects. During interactive learning, students not only think critically, but also solve complex problems based on the analysis of circumstances and relevant information, weigh alternative opinions, and make thoughtful decisions. When using interactive methods, the strongest influence on intellectual activity is the spirit of competition, rivalry, which manifests itself, especially when people collectively seek the truth. With the development of scientific and technological progress, the amount of information required for assimilation increases. Information quickly becomes outdated and needs constant updating. Formation of conviction in their professional suitability and the need to master all training courses, types of training; the development of the desire for self-education and self-education in line with the requirements of the medical profession for the personality of a doctor makes it possible to end up with a highly qualified specialist. Thus, learning, which is focused mainly on memorizing and retaining material in memory, will only partially be able to meet modern requirements. There is an obvious need for new methods and approaches in teaching that could teach students to learn, i.e. to find and assimilate the necessary information on their own.

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## **METHODS OF TEACHING FOREIGN STUDENTS AT THE DEPARTMENT OF TOPOGRAPHIC ANATOMY AND OPERATIVE SURGERY**

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Teaching of topographic anatomy and operative surgery to foreign students at the Department of Operative Surgery and Topographic Anatomy began relatively long ago. Recently, the teaching methodology has changed since it became quite difficult to use cadaveric material in practical classes. Modern technologies have been introduced into the educational process to make up for this shortcoming, as well as the opportunity for students to independently perform operations on laparoscopic simulators and practice suturing skills

**Keywords:** international students, new technologies, methodology

**The purpose of the study.** To provide the results of the methodology of teaching topographic anatomy and operative surgery to foreign students at the Department of Operative Surgery and Topographic Anatomy.

**Materials and methods.** An online resource with educational videos, 3D models of the human body, phantom preparations, wet pig organ complexes, sets of surgical instruments and laparoscopic simulators.

**Results and discussion.** The educational process is divided into several stages. Firstly, students are required to listen to a lecture on a specific topic before a practical lesson. Currently, all lectures are delivered in full-time format in lecture halls at the university. Previously, due to the Covid-19 pandemic, they were conducted online, which, according to surveys conducted at other departments, adversely affected academic performance. The traditional format of lectures has more advantages than online. For example, students can ask questions to the lecturer directly on the aspects they are interested in and immediately get a satisfactory answer.

The second, rather important, stage is the timely preparation for the lesson according to textbooks, methodological manuals in electronic form and training videos on various surgical interventions that the teacher sends to students on the eve of classes so that they can better assimilate theoretical material. This makes it possible for the teacher not to repeat the whole theory anew, but to make only some adjustments and focus on important points of the topic.

The student must come to the practical classes with a certain knowledge base obtained at the previous two stages of teaching. Homework can be prepared either orally or in writing. A student without completed homework receives an unsatisfactory mark and is obliged to correct this mark to a positive one in the near future. This creates an additional burden for the teacher, but other options are ineffective for stimulating the student to study. [1]

In the classroom, the teacher analyzes the material in more detail with the students, while trying to evaluate everyone's knowledge through tests and questions compiled by himself. The level of training of foreign students varies greatly. And sometimes it is difficult to interest more prepared guys, who, unfortunately, are a minority, because of the repeated repetition of the same material for the bulk of the students. An individual approach should be found for each student, because the student must learn practical skills in addition to theoretical material. They must work out all manipulations under the supervision of the teacher.

Each student studies the purpose of surgical instruments, the methodology of their use, learns to apply stitches and tie surgical knots. On cadaveric preparations, he works out tech-

niques such as puncture of large joints, pleural puncture, thoracocentesis, pericardial puncture, conicotomy and tracheostomy. He also has the opportunity to perform various operations on laparoscopic simulators.

Unfortunately, most international students cannot master the material in the time allotted by the program. They need multiple repetitions and a slower pace of information submission, they also do not have enough time to study with a teacher, so the question of official additional hours for foreign students has been overdue for a long time.[1]

**Conclusions.** Our experience of working with international students has shown the need for:

- issuing thoughtful homework before class;
- mandatory checking of homework to stimulate the preparation of students
- checking the knowledge of each student in the form of a test, oral and written surveys
- availability of visual material and the ability to work with hands [1];
- official additional classes for working with lagging students in the schedule grid.

We believe that the complexity and complexity of the subject "Topographic anatomy and operative surgery" urgently require an increase in study hours for the effective development of the discipline by foreign students. Despite all these difficulties, the staff of the Department of Operative Surgery and Topographic Anatomy has been successfully conducting classes with foreign students for many years, developing along with the requirements of the time and is ready to share teaching experience [2].

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### **EXPERIENCE OF SOCIO-CULTURAL INTEGRATION OF FOREIGN STUDENTS IN CONDITIONS OF THE REPUBLIC OF BACHKORTOSTAN**

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**Abstract.** The necessary condition for the successful education of foreign students is their integration into the ethno-cultural space of the host country. In this article, the Department of Human Anatomy shares its own experience in organizing educational work with this contingent of students. First of all, it is necessary to ensure the unity of education and upbringing. Human anatomy and vectors of its modern development, including problems of human-nature interaction, anthropology and anthropogenesis, human genogeography and population genetics, somatotype variability and constitutional features, problems of biological and social evolution, are an adequate platform for discussion about possible ways of developing

modern civilization. These problems are discussed with students with the involvement of local history and cultural material of our Republic. For preserving the authentic cultural code, the best of the students are involved in performances in their groups on the history and current problems of medicine in the countries represented.

Keywords: anthropology, philosophy of medicine, anatomy in art

**Introduction.** One of the most important tasks in working with foreign students is their adaptation to the new conditions of the ethno-cultural environment of their stay and studying. At the same time, the study work should be built considering the fact that students represent a variety of civilization centers: Arab countries, India, countries of Persian culture, Africa and American continents. As a result, the students themselves are carriers of various cultural codes. At the same time, all of them must organically interact and build new social ties not only between different student flows, but also fit into the general ethno-cultural environment that has historically developed in the Republic of Bashkortostan. In our opinion, the task of departments of various profiles from the first courses is to integrate each student, regardless of his authentic attitude and traditions, into a new social environment, which is largely determined by the host country.

In this article, the authors will share their own experience of educational work in groups of foreign students, considering the specifics of the subject taught - human anatomy with the involvement of local history and cultural material from Ufa and the Republic.

**Main section.** As our experience has shown, the Bashkir region as a whole and our University in particular have an extremely rich material that can be successfully used in the educational process at the Department of Human Anatomy.

Thus, setting out the issues of phylogenesis, comparative anatomy and anthropogenesis, we relate to the history of the discovery of Paleolithic sites of ancient man in the regions of the Southern Urals (Capovaya Cave), Altai Territory (Denisovskaya Cave) and other regions of Russia. These monuments of the Paleolithic era, as you know, received world recognition.

The current trend in the development of morphological disciplines is the study of the variant variability of the human body, the identification of its somatypes and constitutional features. This format of educational and research work significantly expands the possibilities of a personalized approach in clinical practice based on phenotypic (anthropological) variability of the body. It is obvious to us that not only the sequencing of the genome of various populations, ethnic groups, and races serves the development of 4R medicine, but also the anatomical variability of the human body can open up new prospects for its implementation. In other words, personification of genotype and phenotype in unity will ensure the development of clinical medicine of the 21st century. That is why we acquaint foreign students with the results of the most interesting anatomical and genetic studies performed in various countries. In relation to our country, the results obtained in the framework of the project of the Russian Academy of Sciences "Genome of the Russian Man" are of interest. These studies were successfully continued by the team of the Laboratory of Population Human Genetics ("Medical Genetic Scientific Center named after Academician N.P. Bochkov," head of the laboratory E.V. Balanovskaya). It is noteworthy that the results of genetic research by the authors are extrapolated to data from anthropology, ethnography, archeology and other related sciences. At the same time, the common evolutionary roots of the peoples of the Eurasian continent with their subsequent waves of migration to various regions are convincingly shown. In our opinion, the results of such biomedical research are fertile ground for ethno-cultural integration in the flows of students with different civilizational codes. Considering the above, the staff of our department use data on the variability of the human gene pool in space (genogeography), as well as its phenotypic adaptation to environmental conditions when teaching Russian and foreign students.

In the format of this article, it is appropriate to note that the east and west joined not only in biomedical research, but also in a sculptural ensemble in front of the main building of

our university. The fact is that in 2016 a symposium was held in Ufa, in which 13 famous sculptors from six countries participated: Bulgaria, Georgia, Russia, France, South Korea, Japan. For a month they worked on creating a series of sculptures united by a single theme "Russia. Eurasian Space: Civilization and Culture.". As a result, an alley of modern sculpture "Art Terria" was opened in front of the main building of the University. All sculptures are made of Bashkir granite from the Mansurovsky deposit. The waytels were offered a single shape and size of the pedestals, but each embodied the idea of a single Eurasian space in their own way. Moreover, most sculptures are deeply metaphorical and turn us to a philosophical understanding of the vectors of the development of modern medicine: the attitude of man and nature, the perception of the noosphere in its cosmic dimension, masculine and feminine as the basic values of the progressive development of society. In our work, we considered the positive experience of other universities in the study of human anatomy through fine art (Botviniev M.S. 2022).

Two sculptures in the presented composition ("Galaxy" - author John Gogaberishvili, Tbilisi, Georgia; "Infinity - infinity" - author So Dong Choi, Seoul, South Korea) are devoted to the modern vision of the universe and at first glance are not directly related to the biological and social nature of man, his evolution. But they represent the infinity of the universe and remind us that man is a fragile particle of the universe and therefore, creating the noosphere, humanity should not forget the concept of the outstanding natural scientist of the last century V.I. Vernadsky (2017) about its inextricable unity with space. V.I. Vernadsky's teachings are confirmed by such vectors of biology and medicine that are developing today as space anthropology, social ecology, which are reflected in the educational process.

The following series of sculptures is devoted to the birth of life: "The White River" (F. Nuriakhmetov, Russia), "Asia" and "Europe" (creative duet Ange & Damanation Paris, France), "The Abduction of Europe" (N. Karlykhanova, Russia). Despite the diversity of artistic performance, these sculptures demonstrate male and female principles as basic values in shaping the social structure of society, preserving traditional family relations, and ensuring generational continuity.

And now a new life is breaking into our world and its spiritual and physical development begins. These processes were metaphorically reflected in the sculpture of the Japanese author Hitoshi Tanaka (Miyazaki, Japan) - "Into the Future of Misaki" and the real embodiment in the statue "Mother and Child" (author T. Subhangulov, Russia). Misaki is not only the name of the girl to whom the author devoted the sculpture, but also a deep Eastern philosophy about the spiritual growth and improvement of man. In the age of artificial reproductive technologies, it is useful to remind future pediatricians, doctors of related specialties about the bio-social nature of man, the high responsibility of the medical community for the fate of future generations.

The next sculpture "Apollo" (author K. Tanev, Bulgaria) presents a young body that has already reached physical perfection. This is perhaps the only statue of the presented gallery, devoid of any symbolism, and at the same time demonstrating the path to achieving the anatomical and aesthetic grace of the locomotor apparatus. In front of us is the true embodiment of the ideas of P.F. Lesgaft (1968) on functional anatomy, which is extremely relevant for future doctors of therapeutic physical education, rehabilitologists, sports doctors.

The presented sculptures are stone sculptures in a three-dimensional coordinate system. In this case, another vector is lost, on the one hand measured as a physical parameter, on the other hand determining the speed of biological processes. We are talking about a fundamental philosophical category - time. And this phenomenon, which gave rise to independent sciences in the form of chronobiology and chronomedicine, also found its embodiment in stone. In the hands of the Bashkir sculptor V. Lobanov, light gray granite appeared in the form of an hourglass holding the planet Earth on itself. "Measure of time" is the author's name for the sculpture. We are conducting a dialogue with students that doctors of various specialties are already using the laws of regulation of biological rhythms, the dynamics of the body's



restructuring at the stages of ontogenesis, the time parameters of the processes of repair and involution in their practical work (Dilman V.M.1982).

As you know, the physical and spiritual health of a person largely depends on his active creative work in any field of activity. And on this path, the Georgian sculptor Valerian Dzhikia found an original solution. He studied the structures of a small settlement on the border with Abkhazia called Anaklia, where each resident built his unique architectural house. As a result, this settlement became a place of attraction for tourists from all over the world. The sculpture with the same name "Anaklia" became a call to creative creation, to the search for new things in everything - construction, medicine, art.

The most difficult to evaluate is the final sculpture "Eurasia" (author F. Rzaev, Russia). The two parts of the whole are hardly held by shaky staples. And will humanity be able to keep this elusive, almost intangible contact of two worlds: east and west? The artist rightly puts this question, but does not give an answer to it. More than a century ago, the famous British journalist and writer R. Kipling, having visited many regions of the Eurasian continent, describing the culture and traditions of a number of indigenous peoples, came to the disappointing conclusion: "West is West, East is East and they will never join together!" However, over the past century, the world has changed significantly. Positive experience of interstate integration in the field of science, art and culture, industrial activities and what is especially important in the field of education has been accumulated. And therefore, it will not be an exaggeration to say that the internationalization of education contributes to the architecture of the entire Eurasian continent.

The above local history material is digitized at the Department of Human Anatomy and is used in the preparation of presentations for a lecture course and practical classes. But there is another side to the problem at hand. Foreign students should be well aware that our goal is not to "boil" them in the common cauldron of European civilization. Moreover, we do not tear them away from authentic culture, history and traditions. To do this, in each group, the best students are invited to speak with abstract messages about the scientists of their countries and their contribution to the treasury of world medical and philosophical thought. Such reports are being prepared in the format of educational research work.

**Conclusion.** Medical and biological disciplines have historically formed on a single philosophical and methodological basis. Prominent physicians of ancient Greece and Rome laid the architecture of modern biology and medicine. In this article, the authors summarize the experience of educational work in groups of foreign students at the Department of Human Anatomy. For this contingent of students, questions of methodology in the study of morphological disciplines require more detailed consideration. That is why we emphasize topics such as the interaction of man and nature, genotype and phenotypic signs, constitutional features and somatotyping, anthropogenesis and social evolution of man. For presenting these aspects of anatomy, we use the above local history and cultural material of our Republic. Obviously, the adaptation of foreign students is a multifaceted process and requires the participation of the entire university staff. As our experience shows, even the departments of the medical and biological profile from the first year can contribute to the integration of students into a new ethno-cultural space.

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## PROBLEMS OF TEACHING FOREIGN STUDENTS IN PHYSICAL EDUCATION CLASSES

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**Annotation.** Physical culture - is one of the means of social and cultural adaptation of foreign students to the conditions of study at a higher educational institution. Physical activity is necessary for all students, as it helps to cope with stress, academic loads.

**Keywords:** physical culture and sports, foreign students.

**Introduction:** Of the main problems of teaching foreign students in physical education classes:

1. Language barrier. In the process of physical education students have to interact, communicate not only verbally, but also most often non-verbally. Such communication helps to overcome the language barrier more easily.

2. Very low level of physical fitness. The reason for this situation is the indifference to physical education, classes that has been formed in the country of residence.

3. Cultural barrier. This is due to the fact that students may not show the necessary respect and attention to their foreign classmates. Possession of country - specific information and knowledge of national characteristics of behavior is very rare, which is why misunderstandings and conflicts may arise.

**The main part.** The purpose of the study - is to consider and evaluate the problems of foreign citizens, studying at higher educational institutions during physical education classes, as well as to find solutions to them.

In the course of the study, the following tasks were **solved**:

1) Analyze theoretical and methodological sources on the research problem.

2) To put forward basic assumptions about possible problems and ways to solve them and consider them from different sides.

3) Conduct a survey in the form of a questionnaire and interview foreign students about possible problems they face during physical education classes.

Let's turn to the results of the study.

The study was conducted in 2023 on the basis of the Bashkir State Medical University of Ufa. We interviewed 20 foreign 1st year university students aged 18-24 years attending physical education classes.

According to the results of sociological surveys, it was revealed that the main difficulty faced by foreigners in physical education classes was the complexity of the complex of physical exercises in the classroom (up to 60% of respondents noted). To help adapt to physical activity, it is necessary that the process of increasing the load occurs more slowly, since it will be easier for the body to adapt to it. It should be borne in mind that the exercises should be cyclical and moderate enough.

As for the hypothesis put forward about the influence of the language barrier in the field of physical education, some foreign students noted the difficulty of classes precisely because of ignorance of the Russian language and difficulties in communicating with teachers (noted up to 16.7% of respondents). Also, the majority noted that the language barrier is present, but not as much as in other disciplines, because most communication is used without the use of words, that is, without speech and language means presented in a direct or any sign form (noted up to 83.3% of respondents).

The restriction of communication within an ethno-cultural group should not be excluded. Most of the students surveyed noted the difficulty of social adaptation - (up to 75% of respondents). In most cases, this is due to differences in culture, in the totality of norms of behavior. When a person finds himself in the conditions of a new culture, the habitual system that has developed in his native culture becomes unacceptable.

**Conclusions and future prospects.** After analyzing the survey results, we can draw the following conclusions and suggest ways to solve the main problems.

1. Indicators of physical fitness of foreign students are lower than those of their Russian peers.

2. Regular physical education classes with an optimal motor regime stimulate the positive dynamics of students' condition.

3. For physical education, it is necessary to form mixed language groups in order to activate mutual learning, self-control, expansion of communicative opportunities and social adaptation. The organization of international teams for competitions will also narrow the gap between students from different countries.

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## **WORKING OUT THE SKILLS OF CHOOSING MEDICINES WHEN RELIEVING EMERGENCY CONDITIONS ON THE EXAMPLE OF A STUDENT CONFERENCE**

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**Abstract.** The article presents the experience of holding an educational and practical student conference "Pharmacotherapy of emergency conditions" for students studying in the specialty of Medical business (training using an intermediary language (English)). The participation of students in the conference allows them to systematize the knowledge gained during training in practical classes.

**Keywords.** Interactive forms of education, student conference, urgent conditions.

In professional activity, a doctor often encounters acute conditions requiring emergency therapy, therefore, when preparing a future doctor, it is necessary to work out an algorithm for emergency care in various clinical conditions.

The practice-oriented approach in training consists in developing the skills of rapid assessment of the clinical situation, conducting the necessary differential diagnosis with conditions requiring immediate highly qualified medical care, and the correct choice and use of medicines [1].

In the classes on pharmacology and clinical pharmacology, we analyze the mechanism of action of drugs necessary for the relief of emergency conditions, and to practice practical skills on the topic, we use interactive forms of training. Practicing practical skills in choosing medications in this case is very important, since a delay of a few minutes can aggravate the patient's condition and even lead to death.

For this purpose, a student educational and research conference "Pharmacotherapy of emergency conditions" is held at our department. Such conferences have been held by us annually for more than 10 years for students of medical specialties (medicine, pediatrics, dentistry) [2]. Over the past two years, we have started to hold such a conference for students studying in the specialty "Medical Business" (training using an intermediary language (English). The format of the conference is different for such students.

Urgent conditions are selected for discussion, about which the patient can actually consult a doctor: hypertensive crisis, angina attack, hyperthermia, nosebleed, hypoglycemic conditions, bronchospasm, etc. The objectives of this event are to stimulate the cognitive activity of students, to increase the level of knowledge and skills in conducting pharmacotherapy of emergency conditions and to develop the skills of providing information through the preparation of presentations and oral reports.

The student conference is held in 5 stages: searching for information on a given topic, preparing a report and presentation for a speech, presenting your work to other students, discussing questions based on the materials of the speech, professional and personal reflection. At each stage, the tasks necessary for the formation of motivation for learning and professional competencies are formulated.

The objectives of the first and second stages are to analyze the scientific literature over the past 5 years on the features of emergency care in this nosology. The attention of students is drawn to non-drug pre-medical care, differential diagnosis of urgent conditions (for example, abdominal pain and angina attack, nosebleeds with damage to the nasal mucosa and bleeding with a hypertensive crisis, an attack of suffocation against the background of bronchospasm or vegetative crisis, etc.) and the possibility and/or necessity of using medications. For the latter, it is mandatory to clarify their availability in the pharmacy at present, according to the State Register of Medicines, the possibilities of over-the-counter leave.

At the third stage, students present a report and presentation to other students and teachers. The tasks of this stage include practicing the skill of logical and understandable presentation of the data obtained, which will further help the pharmacist in working with pharmacy customers. In the presentation, preference is given to videos that are filmed by students themselves, playing a disease that requires emergency care.

The next stage is a discussion with a discussion of issues based on the materials of the speech. Listeners and teachers ask questions to the speaker, which help to orient the student's knowledge on the topic of the work. Mandatory questions are questions about the mechanism of action of the drug, its side effects, contraindications to use. The speaker must correctly navigate the original and trade names of the drug, know its dosage and release forms applicable to a certain emergency condition, the specifics of the release of the drug. Also, the student should be able to give recommendations and, if possible, suggest medications that are necessary to prevent the recurrence of an emergency condition. At this stage, students-listeners are actively involved in the conference, who must not only correctly formulate a question, but, in case of an incorrect answer, give the correct answer.

At the last stage, the speeches are evaluated, the positive aspects and mistakes made during the report are indicated. Teachers explain the questions that were incomprehensible to the participants, once again emphasizing the importance of knowledge, skills and abilities to provide assistance in emergency situations. The participation of students in such a conference allows them to develop the ability to analyze and systematize information obtained during independent work on a research topic, teaches future doctors to present scientific knowledge in the form of a report, teaches constructive forms of collective interaction.

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### **TRADITIONAL AND MODERN METHODS OF TEACHING HUMAN ANATOMY IN GROUPS OF FOREIGN STUDENTS**

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**Annotation.** The article analyzes the relatively low performance in the discipline of human anatomy in groups of foreign students. There is an extremely heterogeneous level of pre-university training of students, a significant part of them do not have the necessary level of knowledge in biology and related disciplines of the secondary school curriculum. The authors of the article share their own experience of teaching human anatomy in foreign groups of students. In particular, the reflective-evaluative self-development technology (GROWTH), critical thinking technologies including brainstorming, the experience of using situational tasks and learning using anatomical drawing are described. It is shown that the proposed teaching methods allow achieving positive results among a motivated group of students.

**Keywords.** Human anatomy, teaching foreign students, reflective technology

**Introduction.** The Department of Human Anatomy has experience in working with a contingent of foreign students. The staff of the department translated teaching materials, presentations for the lecture course and practical exercises into English. As is known, translations of domestic manuals on human anatomy for students of various faculties have been published. But as experience has shown, even a highly professional translation of educational materials into the languages of foreign students and the mastery of the language of the intermediary by teachers does not solve all the problems facing teachers. An integrated approach is needed that takes into account the level of student preparation for studying at a university, his cultural code and adaptation to new social conditions. This thesis is confirmed by a significant difference in the academic performance of Russian and foreign students. Thus, at the Faculty of Medicine, over the past two years, the absolute progress in Russian-speaking groups ranged from 85.0% to 95%, in groups of foreign students it was significantly lower and amounted to about 67%. Qualitative performance accordingly varied from 43% to 60% in the Russian groups, and was twice lower in the groups of foreign students.

The authors agree with the main provisions of the discussion article by Pavlov A.V. [2] about the reasons for the decrease in the level of knowledge of students in the discipline "Human Anatomy". In particular, the problems of pre-university education are pointed out. In our opinion, this postulate is especially relevant for foreign students. In addition, the cited article notes a tendency to reduce the classical forms of teaching human anatomy on biological material: anatomical preparations, museum exhibits. According to the author, anatomical

technique disappears from the educational process, its place is forced to be occupied by dummies, tablets, virtual anatomical tables. The use of traditional and innovative teaching methods in the departments of human anatomy are also devoted to the articles of Nikolenko V.N. [1], Pochueva N.N. [3] and other authors.

In this article, the authors analyzed their own experience of teaching human anatomy for a contingent of foreign students using both classical methods and modern educational technologies.

Main part. The experience of teaching human anatomy to a contingent of international students has made it possible to adapt both traditional and innovative teaching methods for them. The choice of methodological approaches and forms of work can vary significantly in the first semester. First of all, this is due to the different levels of pre-university education of applicants-students. As a rule, a small part of students is ready to master the subject on the basis of methodological and test materials for Russian students. They do not require special methodological support. At the same time, the majority of students face serious problems in mastering the basic medical and biological discipline - human anatomy. They are distinguished by a low level of knowledge in biology, genetics, ecology and other related topics of school education. In fact, in the first two years of study, departments are forced to fill in the gaps in pre-university education. And it is no coincidence that the reflexive-evaluative self-developing technology (RESDT) was adapted at the Department of Human Anatomy. This technique was originally developed by Yunusbaev B.Kh. for use in a comprehensive school [5]. Through the efforts of the staff of the department (N.N. Pochueva et al. 2017, 2020), the RESDT technology was transformed to conduct final classes at the completion of the study of individual organ systems in groups of foreign students [3,4]. For the final lesson on the RESDT technology, two sets of questions are being prepared that are similar in content, but differ in interpretation. At the first stage, the student answers the tests of the first option. Then he is offered the second version of the tests, and here he has the opportunity to find and independently correct the inaccuracies he made when answering the first version of the questions. Working with the second test, the student returns (reflects) to the original question. This is a step-by-step self-development of a student from one test task to another.

In the orbit of critical thinking technologies, problem-based learning methods can be considered. So, at the Department of Human Anatomy, training tables with partially completed columns are practiced. The task of the student is to logically analyze the presented material and fill in the free sections. The advantage of this technique is the possibility of an individual choice of the complexity of the table, taking into account the level of preparedness of the student. In fact, we are talking about the personification of the task. As a form of development of critical thinking in pedagogy, brainstorming is also considered, which is a kind of method of collective work of students. For a contingent of foreign students, the questions are not the most difficult, as a rule they require unambiguous and short answers. As applied to the Department of Human Anatomy, questions require knowledge of Latin terminology, holo- and skeletotopy of organs.

In work with foreign students, methods for solving situational problems in recent years, more often called "case technologies" or "case - study", have proven themselves well. It is obvious that the semantics of the given terms are somewhat different, but conceptually this is a single educational technology. A package of situational tasks has been developed at the Department of Human Anatomy, which are structured according to the principles of systematic anatomy. The technique is used both in the current control of knowledge and in the conduct of final classes, it is a good basis for the formation of clinical thinking.

There is another important vector in the teaching of human anatomy, it can be given the general name "anatomical drawing". Suffice it to recall the annual events held at the Russian State Medical University named after I.M. Sechenov International competitions of anatomical drawing. Students of our university have repeatedly become laureates of this competition in various nominations. It is quite clear that the best works were submitted for participa-

tion in the competition. How is this most important learning tool used in the educational process as an anatomical drawing? The department has developed a list of mandatory schemes, to be completed in workbooks. The general list includes more than 80 schemes for various organ systems. Drawings are checked in the credit classes. The implementation of the scheme is included as a separate question in the exams. In addition, drawings are used as a control material. For this, the department made drawings on which the digital designation of individual anatomical structures is given. The student must identify these structures and give a written answer using Latin terminology.

In the current academic year, the introduction of another form of education has begun, which the authors have defined as a “workbook”, which includes anatomical drawings in the form of an atlas with a brief description of them. The student must read the text and be able to choose the most significant sections of it. Obviously, this technique is used at the initial stages of teaching foreign students in order to develop logical thinking.

In working with a contingent of foreign students, classical anatomy remains the basis: anatomical preparations, museum collections. A school of anatomical preparation was created. The above teaching methods, as well as innovative solutions in the form of digital technologies, a virtual anatomical table, non-invasive supravital methods for studying anatomy are an effective addition to the traditional anatomical school.

Conclusions and further perspective.

The forms and methods of teaching students that have historically developed in the Russian anatomical school generally ensure the educational process in groups of foreign students.

However, it must be taken into account that the contingent of foreign students has a number of specific features associated with its heterogeneous preparation for the conditions of study at a medical university. The situation is aggravated by the extreme imbalance between students with polar opposites in terms of education level.

The experience of teaching and educational work with foreign students accumulated at the Department of Human Anatomy, the forms of work outlined above allow, to a certain extent, to successfully solve the tasks at hand with a contingent motivated to study.

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## **SOCIOCULTURAL COMPONENT IN TEACHING RUSSIAN AS FOREIGN IN THE MEDICAL UNIVERSITY**

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**Key words:** sociocultural component, sociocultural competence, Russian as foreign, professional communication

The article deals with the issue of the effective Russian as foreign teaching in the medical university. Much attention is given to importance of the sociocultural component for the development of Russian language learners in the sphere of professional communication. Sociocultural knowledge is seen to be important component for professional communication. It is specially noted that common sociocultural experience with the language carriers in the professional sphere should be developed on the lessons of Russian as foreign. The ways of developing common sociocultural experience in the medical university are based on the experience of the BSMU Department of the Russian language, Linguistics and International Communication and discussed in details.

According to the program of BSMU development for 2021-2030 international students count for almost 43.5 % of all the university contingent. Given to the prognosed increase in this number, discussion of effective ways of adaptation for life in Russia and for professional training on the lessons of Russian as foreign seem to be an important topic.

Learning Russian as foreign is aimed at the mastering of communicative competence which provides the development of ability to interact interculturally. However, it cannot ensure the success of communication. Apart the knowledge of language communicants should have some common social experience i.e. they should know etiquette, culture, history of the language speakers [Krasnykh 2003: 99-100]. Thus, communicative competence cannot be divided from sociocultural competence which is seen as a composite of knowledge about the country of a studied language, national and cultural peculiarities of social and language behavior of language speakers and the ability to use this knowledge in communication following traditions, norms of behavior and etiquette, social conditions and stereotypes of language speakers [Azimov, Shchukin 2009: 286].

The importance of sociocultural component in foreign language learning and teaching is broadly discussed in the works of V.V. Safonova, E.M. Vereshchagin, V.G. Kostomarov, S.G. Ter-Minasova, G.D. Tomakhin, etc.

Sociocultural knowledge is seen as a basic requirement for a full life in the country of studied language. Lack of sociocultural knowledge may prevent adequate communication due to misinterpreting and choosing incorrect language and behavior tactics. Moreover, it may affect the professional communication as well. Individual peculiarities of a patient, national and cultural behavioral traits, mentality and life environment should be taken into consideration [Ter-Minasova 2000:22]. Introducing sociocultural component on the lessons of Russian as foreign helps to raise cultural level of language learners, boost their motivation for learning the language and using it in professional and everyday communication. The volume of studied sociocultural component in the medical university can be narrowed to the developing of common social experience in the professional sphere [Markovina 2010: 40]. Texts and language materials are considered to be a source of sociocultural knowledge.

Sociocultural competence includes:

- knowledge about basic elements of speech culture of a studied language, sources of sociocultural information, potential incompatibility with language carriers in non-verbal behavior, sociocultural portrait of language carriers, equivalence and non-equivalence relation between the units of studied language and native language;
- skills of recognition of sociocultural language units in different types of authentic video and audio materials, translation of sociocultural language units into the native language and



finding native language equivalents, use of sociocultural language units in speech, critical thinking on stereotypes of sociocultural facts of studied language, comparison of native language and studied language facts [Igna 2019: 79-80].

Learning cultural realia is envisaged in the working programs developed at the Department of the Russian Language, Linguistics and International Communication. International students get acquainted with the peculiarities of the Russian healthcare system and types of healthcare centers (hospital, polyclinic, early treatment centers), structure of a medical card of an in-door patient. Apart medical terminology the skills of doctor-patient communication are mastered. Learning of etiquette includes training and mastering etiquette formulas of greeting and farewell, introduction, addressing, proposal, refusal, consent and dissent. The experience of work with Russian language learners shows that personal pronoun “ты” and personal pronoun “Вы” used for polite addressing need special attention and training. Russian names with their three traditional components and short forms can also be confusing.

Non-verbal means of communication as intonation, rhythm, pauses are mastered on the lessons of general Russian at the beginner’s level and further trained together with the other types of verbal and non-verbal means of communication as gestures, poses, distance in the doctor-patient role playing games where students have to collect anamnesis according to the different types of diseases by stages (passport data, complaints, the history of a disease, current condition of patients, suggested diagnosis) and examine a patient.

Apart role-playing communicative games the system of problematic sociocultural tasks include student educational research project. Such type of the project was implemented for fourth year students. In the frame of the project students worked with the authentic material (medical articles) collecting the vocabulary, translating the article, finding the main objectives described in articles and presenting the research to their groupmates. As a result, the project help students to enrich their vocabulary with generally used Russian medical terminology and specific sociocultural language units [Kudryavtseva, Saitova 2020].

Authentic materials such as audio and video recordings, different types of printed texts sparks interest in the studied subject as they contain the fullest information on the sociocultural reality of the country of studied language. Infographics from newspapers and official government institutions like the Ministry of Health are often used on the lessons. Literature is also rich in lexical units with national and cultural components and allows learners “to delve into situational language environment” [Galimova 2022: 112].

Lexical units with national and cultural components are presented by background vocabulary, culture specific words, phraseological units, set phrases (proverbs, sayings, aphorisms). Medical Russian textbooks used on the lessons are also be a source of sociocultural language units. Phraseological units along with euphemisms and metaphors play a special role in the medical terminology and in patient’s speech. It also appears to be crucial to understand the boundaries of their use as synonymic lexemes may belong to different language registers [Oshchepkova, Petrosyan 2021: 218]. For example: *под ложечкой - эпигастральная область, нет мочи - нестерпимо, мушки перед глазами - мелькание перед глазами*. Names of diseases can be also presented by words of different registers: *грудная жаба - стенокардия, зайчья губа - хейлозхизим, Антонов огонь - гангрена*. Acquaintance with such lexical units enables better understanding of patient’s complaints and described medical condition, helps adequate communication in accordance with the communicate (patient, patient’s relatives, colleagues) and situation.

To conclude with, acquiring common social experience with the language carriers appears to be crucial on the lessons of Russian as foreign for the development of future healthcare workers in the professional sphere. Incomplete knowledge of sociocultural information may cause sociocultural barrier in everyday communication and in professional communication as well.

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## ELECTRONIC EDUCATIONAL TECHNOLOGIES IN THE COURSE OF TRAINING OF FOREIGN STUDENTS FOR DISCIPLINE "OBSTETRICS AND GYNECOLOGY"

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*Summary:* article is devoted to a question of implementation of electronic technologies in educational process in medical school in the conditions of implementation of competence-based model of training of the expert.

*Keywords:* competence-based approach, the innovation technologies, interactive training, foreign students.

Thousands of foreign students study at medical universities of Russian Federation citizens from near and far abroad. Priority in choosing a university for international students is high quality education. Majority medical universities in Russia provide training for foreign students in Russian and English languages.

BSMU meets all international requirements for the training of international students in the course of mastering the profession of a doctor, using a competency-based approach to obtaining theoretical knowledge and practical skills .

The system of continuous education of students of medical universities, essential to improve the quality of doctor training, the introduction of international standards of education require the optimization of educational processes, improving teaching methods, and applying

innovative, international educational technologies, as well as the selection of methods that remove language restrictions for international students.

The task of each teacher is to use rationally the innovation technologies at implementation of requirements of Federal State Educational Standard of Higher Education, providing for the competency-based approach, use in the educational process of active and interactive forms of conducting classes in combination with independent extracurricular work for the formation and development of general and professional competencies of students [1].

At the Department of Obstetrics and Gynecology №1 widely interactive learning technology, modern computer facilities using electronic information and educational environment of the university.

Using computer presentations in the classroom obstetrics and gynecology aims to:

- ensuring presentation of educational process;
- increase in motivation of students;
- increase in volume of new material on classes and reduction of time for his explanation;
- performing virtual demonstration displays with use of the inaccessible equipment,

Bright illustrative material used in slide interpretation most clearly and intelligibly, with the help of predominantly visual perception, allows you to attract students' attention to learning new material and causes maximum interest, expands opportunities teacher, in addition to this, it contributes to a better understanding of international students.

Increasing foreign students' interest in learning new material is the base for the formation of professional competencies of future specialists.

One of the innovative activities of the department is the development, creation and implementation in the learning process of electronic teaching aids understandable for both local and foreign students.

Electronic teaching aids are created on technology of "compression of information" (drawing up schemes, tables, algorithms, use of photographic materials, etc.) and contain first of all an illustrative (evident) training material on obstetrics and gynecology. Manuals are presented on the educational portal of the department and an electronic resource of BGMU library that allows the use of them for out-of-class independent work remotely, and for international students it gives the opportunity to always return to the material of the classes at any time.

One of important trends of development of education is search of the innovation control methods of knowledge meeting the requirements of objectivity, reliability, technological effectiveness at small cost. All this determines the need and significant importance of the development of interactive systems electronic testing [2].

Testing is a standardized form of control in the sense that both the test procedure and the assessment of knowledge are uniform (standard) for all students. It is convenient to use test tasks also at the organization of independent work of students in the self-checking mode, and at repetition of educational material.

Test control has a number of advantages: contributes to the unification of requirements for the volume and level of knowledge; excludes subjective approach to their assessment; allows us to carry out it at the same time among a large number of students, regardless of ethnic group.

Considering the above the Department of Obstetrics and Gynecology No. 1 set itself the task: by introducing new opportunities computer technologies to develop advantages and reduce shortcomings of testing to a minimum as objective, reliable, technological methods of knowledge control, and also make teaching materials more accessible to students of different language groups .

The department developed and implemented the following computer control programs:

1. Materials for independent out-of-class work are placed on the educational portal of the department on subjects of modules (obstetrics or gynecology) with the entering and outgoing test tasks on 25 questions in each for students of 4, 5 and 6 years, as well as groups consisting of foreign students.

By preparation for classes of the corresponding module the students pass a test online installation of the timer of time and fixing of the received results in the online magazine on the educational portal of the department.

2. Test tasks for a concluding session for each course on 44 questions. Final testing is held in a computer class in the department of obstetrics and gynecology No. 1 offline by installation of the timer of time and fixing of the received results.

At the department all types of testing - entering, intermediate and final. Analysis of test results is carried out according to every student. Theoretical questions of test tasks for the final lesson are shuffled in their sequence. It eliminates the possibility of using ready-made options answers.

Great attention is paid to foreign students' feedback during the test. This is achieved, in particular, by discussing the process of answering questions and the result of testing within the group with a visual display of the ranked responses of students. A competitive environment which significantly increases motivation of students to develop a subject is as a result created to some extent.

Thus, electronic educational technologies in the course of subject training allow students to strengthen their independent and systematic work during the academic year, which also works for international students. In addition to evaluating the quality and degree of knowledge and skills, computer testing also performs motivating, diagnosing, managerial, educational, and training tasks.

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### **ISSUES OF ADAPTATION OF FOREIGN STUDENTS IN THE BASHKIR STATE MEDICAL UNIVERSITY**

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**Annotation.** The article describes the difficulties faced by students who come to study at BSMU, the features of the adaptation process in the first years, educational and organizational support for students from the dean's office.

**Key words:** foreign students, export of education, problems of adaptation

At present, competition for foreign students is intensifying in educational services global market among over 10 thousand educational institutions. It should be noted that, by attracting foreign students to their country to study, the state will receive the economic benefit in the form of tuition fees, medical insurance, accommodation, meals, transport costs, leisure Time Activities, etc. [4]

In the field of competition in educational services global market, the issue of soft adaptation of foreign-language students plays a key role. Effective adaptation of foreign-

language students ensures the formation of a good attitude towards Russian universities after the students return to their homeland.

Special conditions are being created in our country to increase the export of educational services. For the effective adaptation of foreign students and the removal of the language barrier, various kinds of federal targeted programs are being developed in the country to popularize the Russian language, culture and education in Russian, as well as acquaintance with the history of the country of the language being studied. [1]

In turn, foreign students are attracted to Russian education by the fact that historically established fundamental traditions are still preserved here, which form students' professional skills and abilities. The relatively low cost of tuition at Russian universities remains attractive for foreign applicants.

According to FSUE TASS, in 2022 the number of foreign students receiving higher education in Russia increased by 8.4% compared to 2021, which made up a difference of more than 351 thousand students. The number of foreign students wishing to study in Russia is increasing every year. If in 2019 298 thousand foreign students studied in Russia, then in 2020 this already amounted to 315 thousand, and in 2021 - 324 thousand, which made it possible to firmly consolidate the fifth place in the world in terms of the number of foreign students studying [2, 3]. For higher education, students come from such countries as Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, the Republic of Belarus, Kyrgyzstan, as well as from far abroad countries - from India, China, Egypt. At the same time, "General Medicine" remains the most popular specialty among their medical specialties. Since, for a student who has received a higher medical education in another country, it becomes possible to take a certain place in society and thereby make a successful career in his country.

Applicants who arrived to study represent different cultures, so there are differences in the vision of the world; the process of adaptation to new living conditions will also go differently for them.

The experience of 2020 has shown that the future of world health depends on international cooperation, that is, the internationalization of education.

Bashkir State Medical University is one higher educational institution in the medical field in the Republic of Bashkortostan. This is the center of medical and pharmaceutical science, it is part of the scientific and educational medical cluster "Nizhnevolsky".

The process of internationalization at the university began in October 1991, when students from Jordan, Syria, Palestine, Israel, Yemen, and Morocco started to study with Bashkir students. For the economy of the republic, this was a positive trend, as the university attracts foreign capital to the region, and through cooperation with foreign medical organizations, it contributes to the dissemination and maintenance of foreign relations of the republic.

It became necessary to prepare an adapted educational and methodological material that takes into account not only the behavior and learning abilities of foreign citizens, but also the characteristic features of specialized medical disciplines. Accordingly, methodological manuals were published for foreign students; courses of lectures, independent work were developed; questions were prepared for the exam, taking into account the specifics of the mentality of foreign language students. At the same time, issues of student accommodation, organization of a social and domestic environment for students to live in the most comfortable conditions were resolved.

According to statistics, foreign students who came to study in a foreign country leave in the first two years, facing various difficulties.

Let's consider the most common problems and consequences that students have upon arrival to study in the Republic of Bashkortostan. Firstly, lack of knowledge of the intermediary language at the proper level led to problems at the household level, such as going to the grocery or clothing store; an incorrectly chosen bus route that took them to the other end of the city. Secondly, the republic is located in a temperate climate, where in winter the thermometer value drops below  $-30^{\circ}\text{C}$ , respectively, during this period of the year it is necessary

to dress warmly, students who arrived from countries with a milder climate were not ready for this. This caused them some discomfort, stress. Thirdly, students also faced with gastro-adaptation, there were difficulties with the usual grocery basket. Fourthly, students, in particular minors, at the time of their arrival to study did not have the experience of independent living, in their homeland they were more or less controlled by close people. In a foreign country, they had to learn to live independently, solve medical, migration, and economic issues.

It should be noted that the problems that a foreign student faced upon arrival in the republic were not always of a domestic nature. He had to adapt to educational programs. And, it should be noted, these differences are especially acutely felt by students who come under the program of academic exchange between universities (academic mobility), the period of study of which is only a few months.

The result of the successful adaptation of a foreign student, for example, in a medical university, is usually understood as the achievement of his psychological balance at the information-cognitive, communicative levels; the formation of new competencies.

During the latest years, a number of foreign citizens studying at the University are increasing. Training is conducted both in Russian and in the intermediary language - English. As of January 2023, the contingent of foreign students at the university reached 3885 people, they came from 54 countries of the world.

The dean's office works with foreign students efficiently and fruitfully, it consists of 2 departments - the department for organizing the educational process and the organizational and visa department. The policy of the dean's office is focused on the effective and soft adaptation of foreign students. For this purpose, the institution of mentoring was created in the dean's office, which includes two forms: the institution of curators and tutoring. The institute of curators is a kind of "cornerstone" in the system for managing the process of adaptation of foreign students. Teachers, in their free time, control students, help them in various situations, issues that arise during their stay in a foreign country. It can be said that the curators have become "university dad and mom" in the process of primary adaptation of foreign students. They systematically organize events aimed at involving students in the social, scientific life of the university; introduce the history and culture of the republic, the country.

Thanks to the curators, foreign students during the New Year holidays were involved in cultural, educational, sports and recreational activities. According to the schedule for working with minors, during the New Year holidays they visited one of the oldest museums in Russia - the Bashkir State Art Museum named after M. V. Nesterov, got acquainted with the works of great artists. They also visited the Republican Museum of Military Glory, built in honor of the 55th anniversary of the victory in the Great Patriotic War. The museum presents a collection of edged weapons, personal belongings of war veterans, military awards, trophies, front-line diaries, and a collection of photographs reflecting the life of Bashkortostan.

Tutoring is one of the forms of mentoring, "tutor" in translation from English is a teacher-mentor. The tutor contributes to the formation of the student's cognitive interests, coordinates his independent work, and contributes to the formation of the student's personality. At the university, tutors are senior students, they are mentors for junior students.

Thus, the institution of curators in the system of managing the process of adaptation of foreign students at the university is one of the most important. Dean's office for international students and the scientific library of BSMU created cultural and linguistic club "Between the cultures». There is a student club - the BSMU Press-Team student press service. There is organized the student scientific society of Francophone students LA SOCIÉTÉ SCIENTIFIQUE FRANCOPHONE, a scientific and educational club "Mastering excellences in studies".

In conclusion, it must be said that the process of internationalization at the Bashkir State Medical University is active and comprehensive. The university has been participating in the international student mobility program and joint PhD programs for several years with leading Chinese and European universities. It is planned to recruit famous foreign scientists in order to attract talented young people, and as a result, world-class research will be conducted;

as well as part of scientific and pedagogical workers in international academic mobility programs, in the work of international scientific organizations, in international research projects.

Accordingly, all of the above will be effective for increasing the export of educational services.

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### **FEATURES OF TEACHING PHYSICAL CULTURE AND SPORT FOR FOREIGN STUDENTS**

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**Annotation.** Teaching the discipline "Physical culture and sport" to foreign students involves taking into account the ethnic characteristics of this contingent of students.

**Key words:** foreign students, physical culture, ethnic characteristics.

**Introduction.** At present, the training of specialists for foreign countries has received state significance and is an important component of the foreign economic and foreign policy activities of the Russian state. The activity of higher educational institutions in the field of training highly qualified personnel, including the search for modern methods and means that optimize the process of adaptation of foreign students, is one of the main directions for establishing the prestige of Russian education in the world educational process [6].

The internationalization of modern higher education actualizes the problem of adaptation of foreign students to the unfamiliar reality of higher education in an unfamiliar country [6].

Getting into a different socio-cultural environment, a foreign student feels the need to adapt to it from different positions: as a representative of his country, that is, the bearer of his socio-culture, traditions, customs, norms of behavior, value system. As a young person, that is, a person with specific personal characteristics inherent in her; as a student, that is, the subject of the activity of the pedagogical environment, and as an object of influence of this environment on him.

It is extremely important for people from different ethnic groups to adjust to their new surroundings when they move to a new place. This adaptation process can be influenced by various factors, such as how different the culture of the host country is from their own, the flexibility of the individual's mind, their own cultural norms, religious beliefs, language skills, and their gender and age [2].

**Objective.** To reveal the features of teaching the discipline "Physical culture and sport" in the multi-ethnic environment of foreign students.

**Research methodology.** The analysis of the effectiveness of the introduction of

innovative methods of teaching physical culture in the educational process of foreign students was carried out.

**Results of the study and their discussion.** Physical education classes for foreign students are considered by the leadership of the Bashkir State Medical University as a factor contributing to successful adaptation to new conditions of study and living. However, teaching the discipline "Physical Culture and Sports" to foreign students involves taking into account the ethnic characteristics of this contingent of students. So, for example, Muslim girls prefer to exercise separately from boys, but from a practical point of view, the clothes of Muslim girls are not convenient for playing sports. Due to the presence of periods of restriction in food for religious reasons, high-intensity and endurance exercises are excluded from the educational process for this period of time. Lessons have a game focus with the use of exercises to develop flexibility and coordination [3].

The distinctive behavioral line of students is also taken into account. Malaysian, Egyptian, Iranian, African, Arab students are more active in the classroom. They quickly learn the educational material, are more willing to make contact with the teacher, and often ask questions of interest to them. Students from India are more passive. Indian girls are often embarrassed to show their physical fitness. Therefore, the lesson with Indian students is built taking into account their motor skills. The lessons focus on the positive qualities and achievements of students, on meeting their needs for self-affirmation and communication. The solution of these problems presupposes a departure from the strict regulation of classes, an increase in their emotional saturation, the maximum variety of forms, methods and means of physical culture, the widespread use of visual and technical means. The load is selected depending on the preparedness of those involved. Special time is allotted to perform exercises chosen at their request. This approach encourages them to acquire the skills to perform exercises in the process of self-study.

Malaysian students are more disciplined. They adhere to hygienic requirements, are less likely to be late and practically do not miss compulsory training sessions without a good reason. More purposeful educational work is being carried out with the rest of the representatives of various ethnic groups. The necessity of having special change of clothes and shoes for physical culture is explained, as well as the rules of conduct in the classroom are explained. Considerable attention is paid to testing the physical qualities of foreign students. Practice has shown that with the Russian standards for physical fitness less than half of the students succeed. Therefore, separate tables for assessing physical qualities have been developed for foreign students, and the emphasis is on the indicators of the increase in individual results, based on the fact that testing should encourage students to achieve a higher level of physical fitness, not cause a negative attitude towards physical exercises, and help create a positive attitude among students. psychological mood. The tests are informational in nature, give students an idea of the current level of their physical fitness and are not compared with the standards established in Russia [4,5].

New approaches to the content of classes, taking into account the ethnic characteristics of foreign students, focus not only on the motor training of students, but also on the development of the individual, on the individual perception of educational material. In the course of the search for innovative approaches to the organization of training sessions with foreign students, the special significance and attractiveness of gaming activities for them is taken into account. Foreign students are happy to learn new games, but at the same time they prefer already familiar, national sports. In general, sports games allow us to solve a whole range of important tasks: to satisfy their need for movement and stabilize their emotions, teach them to control their bodies, develop not only physical qualities, but also mental and creative abilities, moral qualities, etc.

At the Department of Physical Culture of the Belarusian State Medical University, the established experience of working with foreign students provides not only the specifics of forms, methods and selection of means in the organization of educational work, but also the



qualitative composition of teachers. As a rule, experienced teachers with a long teaching experience, as well as an academic degree and title, who speak the intermediary language, work with groups of foreign students. This made it possible to form an active attitude towards classes among foreign students, increase attendance and develop a steady interest.

Participation in competitions and joint trainings with Russian students is one of the factors that contributes to the effective study of the Russian language by foreign students, their free and active behavior in an informal setting, the optimal form of expanding and consolidating the motor skills acquired in the classroom. More than 40% of foreign students at the Bashkir State Medical University after completing the compulsory course in the subject "Physical Culture and Sports" continue to engage in various sports sections. The optimal amount of physical activity stimulates the positive dynamics of physical development, functional state and physical performance of foreign students.

**Conclusions and further prospects.** A variable approach, taking into account the ethnic characteristics of foreign students, increases the importance of social and professional value motives aimed at improving health, improving the professionally significant qualities of a future doctor, and allows solving psychological and pedagogical problems of education, as well as issues of physical self-improvement.

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### **SIMULATION TRAINING AS PRACTICALLY-ORIENTED TECHNOLOGY IN PROFESSIONAL STUDY OF STUDENTS**

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**Abstract:** The article is devoted to the issue of simulation training as a practice-oriented technology in the professional development of students when mastering the discipline "Obstetrics and Gynecology".

**Keywords:** simulation training, foreign students, professional competencies, quality of education.

By nowadays the priority direction of modern education is simulation training, which is one of the most crucial steps in becoming an expert and allows for the development of

competencies in the field of study [3.4]. The establishment of simulation training facilities is well outside of the current situation given that medical university students are restricted from doing manipulations with actual patients due to ethical issues. Using interactive exercise equipment, patient robots, and virtual simulators during the training of specialists at all educational levels enables the fulfillment of practical skills for providing healthcare and the simulation of a variety of clinical situations, including those requiring the provision of emergency medical services. Simulation and training facility existing on the basis of the BSMU Clinic the center allows you to solve tasks in the field of anesthesiology-resuscitation, obstetrics and gynecology, neonatology [2].

It should be noted that in the training of specialists of higher professional education, the Bashkir State Medical University is becoming a launching pad for the professional training of foreign students. Due to the expansion of international relations, and, as a result, an increase in the number of students from among foreign citizens, the university has currently concluded more than 50 agreements with foreign universities. Foreign citizens use the right to study at preparatory departments, preparatory faculties of federal state educational organizations for additional general education programs that provide training for foreign citizens to master professional educational programs in Russian. Mastering the profession of a doctor, performing one's professional activities (communication with patients and medical personnel in Russian, reading specialized literature, etc.) requires foreign students to have a high level of professional and communicative competence.

Unfortunately, in a hospital setting, international students do not have the ability to perform a certain technique, method of examination and / or treatment due to the fact that the object of study is not just people, but patients suffering from this or that pathology. It should be mentioned that patients frequently refuse to serve as learning role models. Because obstetrics and gynecology is integrally tied to a woman's intimate side, learning actual patients challenging in terms of ethics. With the help of special mannequins, there is possibility to teach aspiring obstetricians and gynecologists the most challenging childbirth techniques, emergency care, work out invasive procedures endlessly without endangering the mother-to-be or the fetus, and create role models for medical staff behavior (teamwork) in critical situations.

In the simulation center features cutting-edge mannequins, including the computerized mobile obstetric simulator "Noelle", which was created in full human growth. The system includes mannequins of woman in labor and a full-term fetus with movable limbs and imitation of heartbeats, a wireless touchscreen vital monitor, with parameters for the expectant mother and the fetus with screens, a laptop with a screen for wireless control of maternal and fetal dummies, as well as a vital signs monitor, and a video camera with a microphone to record the learning process. The patient's vital signs are shown on the monitor screen, including the heart rate, blood pressure, respiratory rate, carbon dioxide content, and peripheral oxygen saturation, time, body temperature. It is also possible to perform fetal cardiotocography by displaying data on the monitor screen. The "Noelle" program includes 16 scenarios of physiological and pathological childbirth. Exist the ability to edit existing and create new clinical scenarios, intelligent feedback on actions of medical personnel by changing the physiological life parameters. Automated system birth process allows you to schedule the timing of delivery as well as pause at any point during virtual childbirth to assess a specific clinical scenario. The instruction typically takes the form of an educational game, where each student has the chance to autonomously by directing of the teacher to perform the head and pelvic presentation and spend the third stage of labor.

The mannequin's technical features enable computer control from a distance, enabling you to paint a more accurate picture of what's happening. The robot simulator mimics human physiology, which causes crucial characteristics to automatically change when medications or other outside factors are introduced. The technical capabilities of the computer system make it possible to practice actions in emergency obstetrical situations, such as childbirth with a head-and-pelvis presentation, postpartum hemorrhage, an eclampsia attack, umbilical cord

prolapse, and performing cardiopulmonary resuscitation on both the expectant mother and the newborn. It is feasible to simulate a intubating a laboring woman's breathing system, caesarean section, obstetric forceps, a vacuum extractor, and deciding the fetal head's position, the level of cervical dilatation, and any anomalies includes placenta attachment, perineotomy, and potential for suturing, which permits the development and enhances your psychomotor skills.

There is an endoscopic stand in a separate room that enables you to learn and advance your laparoscopic interventional abilities. When using it, the same endoscopic tools used during a real laparoscopy are used. [1]. Surveillance cameras located in the training areas allow recording and reproducing the actions of both individual specialists and the entire medical team. The video broadcasting system is transmitted for further discussion of what was seen in the briefing room, which significantly increases the effectiveness of the lesson. The accessible simulators are intended to learn the fundamentals skills of a specialty, and being able to practice them stress-free makes it easier to work with patients in real life later on.

It is necessary to note some features of teaching the subject "obstetrics and gynecology" to foreign students. Along with the established forms of control of knowledge, skills and abilities that are applicable to Russian students, additional assessment procedures are provided for foreign students, which ensure the determination of the levels of achievement of competencies in the sense that international practice has been leaning towards recently. In particular, we are talking about four types of professional competence:

- competence in terms of knowledge (availability of the necessary) professional and business knowledge and skills, as well as the ability to apply them in practice);
- cognitive competence (the ability to demonstrate high-level thinking abilities when setting and solving problems professional and business sphere);
- business competence (understanding the extended business context in relation to the narrower area in which the diploma holder practices, as well as the ability to act actively, anticipating the wishes of product consumers);
- ethical and personal behavioral competence (the specialist has certain ethical and professional values, as well as his willingness to publicize situations that would be contrary to ethical or professional norms and rules).

Thus, rapidly developing new technologies, including in medicine, make it possible to use simulation training as one of the key areas for the development of a higher medical school, which improves the level of training of foreign students, reduces the number of complications and improves the quality of specialized and qualified medical care.

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## THE ADULT LEARNING THEORY PRINCIPLES

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This article deals with one of the important approaches and methods of teaching, clearly the andragogy approach of today's methodology. There are six main assumptions in adult learning theory. They are: self-concept, learning from experience, readiness to learn, immediate applications, internally motivated, need to know. Andragogical approaches emphasize the practical nature of education and the future-centric and purpose-driven applications.

Keywords: andragogy, adults, andragogical assumptions.

The art of teaching adults effectively requires an understanding of various principles or theories of how adults learn, and requires making an effort to apply some of those principles to practice. Andragogy is an approach to learning that is focused on adult learners. The term was first coined by educator Alexander Kapp in 1833, and it has since been used to describe a variety of educational philosophies and methods adults learning.

Andragogy is typically contrasted with pedagogy, which is the more traditional approach to teaching children. Andragogy is built on the premise that adults are more self-directed and motivated than children, and that they need to be given the opportunity to learn in ways that are relevant to their lives. Andragogy hinges on pursuing learning past formal education. In pedagogy, education is viewed as a passive transmittal of knowledge and skills that had stood the test of time [4]. It is content-driven and fact-laden. But adult learners need and want applicable knowledge in real life. Thus, they are resistant to the tactics of traditional pedagogy like drills, quizzes, examinations, fact-laden lectures, and rote memorization.

There are six main assumptions in adult learning theory. They are: self-concept, learning from experience, readiness to learn, immediate applications, internally motivated, need to know. Self-concept. Adult learners have a self-concept. This means that they are autonomous, independent, and self-directed; Learning from Experience. Experience as a rich resource of learning. Adults learn from their previous experiences. Thus, it is a good repository for learning; Readiness to Learn. Adults tend to gravitate towards learning matters that matter to them. Their readiness to learn things is highly correlated with their relative uses; Immediate Applications. The orientation of adult learning is for immediate applications rather than future uses. The learning orientation of adults tends to slant towards being task-oriented, life-focused, and problem-centric; Internally Motivated. Adults are more motivated by internal personal factors rather than external coaxes and pressures; Need to Know. Adult learners have the need to know the value of what they are learning and know the why's behind the need to learn them [3, 5].

These assumptions guide practitioners of andragogy in delivering learner-centered education. The learning is natural and internal process totally controlled by the learner. In this view, it is by fiat that the learner is the real center of education. Hence, by adult learning theory principles it is prescribed that educators accept and operate within this premise. Thus, educators should not really "teach." Instead, they should facilitate learning. Moreover, practitioners of the andragogy approach advocate a negotiated design of relevant assessment between learner and facilitator. Also, the "guru factor" is removed [3]. This is deemed critical when you really want to be person-centered. And, in order to achieve these, Knowles highlighted the following basic principles: adult education must focus on solving specific problems and must rely on the experience of teachers [1]. There should be significant knowledge and experience gained by teachers from training. Teachers should be able to analyze and check teaching material. Teachers should receive feedback about their progress. Andragogical principles require the collaboration of both teachers and learners to actively carry out learning processes. Also, it is not only the learner that needs a course correction. The educators are also required to improve their performance relative to the needs of the learner. Moreover, in relation to the

tendency of adults to be more ready to learn about things that matter to them and have immediate applications in their lives, Galustyan and colleagues (2019) asserted that education should provide a learner with the opportunities to solve societal problems [1]. Thus, they should be equipped to be able to: learn to know. A person should have the tools to be able to understand the affairs of the world; learn to do. A person should be equipped with the skills and knowledge to be able to produce the changes they want in their environment; to learn modern life. A person should be able to take part in various kinds of human activities cooperating with other people. Andragogy and its principles are being applied by researchers to continuous employee learning in industries. It has been applied to adult software training, among others [2]. Moreover, the Knowles adult learning principles do not exist in a vacuum nor similar lines of reasoning were not developed by other thinkers. In fact, as pointed out by Hurt (2012), Knowles' andragogy is consistent with and is complemented by other frameworks and approaches, especially situated cognition and the minimalist approach [2].

In conclusion the adult learning theory principles emphasize the practical nature of education and the future-centric and purpose-driven applications. Adult students need more than passive transfer of knowledge from one person. They need to be involved busily in the learning process to create their own knowledge, to make sense of the learning, and to apply what is learned in life. Thus, andragogical theory principles has changed the teaching philosophy of educators around the world. The educational systems should provide all learners the opportunities to be actively engaged in learner-centered educational experiences.

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### **ELECTRONIC EDUCATIONAL ENVIRONMENT OF MEDICAL UNIVERSITY AS A CONDITION FOR THE EFFECTIVENESS OF THE INTERNATIONALIZATION OF THE EDUCATIONAL PROCESS AND IMPROVING THE QUALITY OF EDUCATION**

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Internationalization is a process reflecting the progressive trends of the new century. In modern society, which has entered the information age, there is a transition from traditional education in conditions of limited access to information to a qualitatively new education using modern information technologies focused on the implementation of learning processes. For this purpose, an electronic educational environment has been created at the university. The main purpose of the creation is the formation of a new level of information support for the educational process, the formation of a personal information space for students, individualization of learning by expanding students' access to the educational information environment, activation of independent work, ensuring the objectivity of knowledge control, creating opportunities for a flexible educational trajectory.

The electronic information and educational environment provides: access to curricula, access to work programs of disciplines (modules), practices and methodological recommendations, access to methodological support of disciplines (modules), practices; access to electronic resources and publications of electronic library systems; access to electronic educational resources; fixation of the course of the educational process, the results of intermediate certification and the results of mastering the basic educational program; conducting all types of classes, procedures for evaluating learning outcomes using assessment materials, the implementation of which is provided with the use of e-learning, distance technologies; forming an electronic portfolio of students in accordance with the order of accounting for academic performance, student's work, reviews and evaluations of these works by any participants in the educational process, interaction between the participants of the educational process.

A mandatory component of the electronic-educational environment is constant monitoring. Monitoring is a constant monitoring of the progress of the educational process in order to identify and evaluate its intermediate results, the factors that influenced them, as well as the adoption and implementation of management decisions on the regulation and correction of the educational process. The need for monitoring as a tool that provides reliable information to the subjects of innovation activity is associated with the often manifested discrepancies between the goals set and the results obtained.

The quality system of education at the university provides for constant monitoring of goals and areas of influence and consists of the following components: audit of the quality of admission to an educational organization, selection of applicants; monitoring of the quality of resources (financial, informational, technological, material); monitoring of the organization of the educational process; monitoring of the quality of training specialists.

Monitoring the quality of training of specialists is the final object of the quality monitoring system. It is provided by: - end-to-end step-by-step control of students' activities throughout the entire period of study at the university; - registration and analysis of information on the state of the market of medical and pharmaceutical activities in the region and employment of graduates; - feedback: the employer is a young specialist, contributes to the adaptation of the quality and ensuring the competitiveness of education. Monitoring of the quality of training of students provides for: - continuous monitoring of training of students (based on the results of the current control) through: assessment of the formation of competencies - (tests, exams, practical skills, testing, interview); - conducting and analyzing the results of interim certifications; - the basis for conducting intermediate types of certification - the fund of assessment materials; - monitoring of indicators of the state final certification of students.

Thus, quality assurance becomes an important tool and regulating mechanism of the educational process in an educational organization. The basis of quality control is the federal state educational standards. The educational standards formulate requirements for personnel, educational, methodological and logistical support of the educational process, as well as the organization of various kinds of practices, state final certification and the level of professional preparedness of graduates. The obvious irreversibility of globalization and internationalization of the educational process in modern medical universities is impossible without the formation of an electronic educational environment. The University, meeting modern requirements, actively implements new technologies in the process of education and training of highly qualified medical personnel, which increases the status of the education process and the quality of consolidation of knowledge acquired at the university and forms professional competencies in accordance with professional standards.

# INNOVATIVE TECHNOLOGIES IN ACQUISITION AND PRACTICING PRACTICAL SKILLS OF THE DISCIPLINE THERAPEUTIC DENTISTRY BY STUDENTS FROM FOREIGN COUNTRIES

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**Annotation.** This article discusses the advantages of acquisition and improving the professional skills of oral examination, preparation of hard tooth tissues and filling of carious cavities among students from foreign countries using jaw models and simulators. The ongoing development and assimilation of practical skills will increase the scale and quality of assimilation of the section cariology, diseases of hard tissues of teeth, disciplines therapeutic dentistry.

**Keywords** – students from foreign countries, practical skills, examination, dissection, filling, jaw models, simulators.

**Introduction. Introduction. Literature review.** Innovations in educational activities are the use of new promising approaches and technologies that contribute to the effective acquisition and development of professional skills [3, 4, 5, 6, 8, 7, 11].

During the entire period of study in higher education students receive theoretical knowledge, and practical knowledge skills and abilities based on their repeated repetition on phantoms, models of jaws or simulators. The initial stage of familiarization with the practical skills of students occurs in the third year during a comprehensive dental examination, then against the background of ongoing therapeutic and preventive treatment. In a comparative aspect with traditional teaching methods, which form the basis of clinical thinking, the development of practical skills on simulation equipment has the property of clarity, in the complex it allows the student to remember and save all the manual actions performed [6].

During the entire period of the educational process in the specialty Dentistry from the 3rd year and inclusive to the 5th year students from foreign countries carry out the acquisition and improvement of their practical skills at the Department of Therapeutic Dentistry. And in the simulation center of BSMU - they work out methods of clinical dental examination according to the algorithm of the diagnostic process for diseases of teeth, periodontal and oral mucosa, as well as work out the stages of preparation of carious cavities of hard tissues of teeth and their filling [1].

Students from foreign countries have the opportunity to fully practice practical skills at the stage of acquisition and improving these using innovative teaching methods, and it contributes to the qualitative development of the most complex techniques and techniques completely without risk to patients [1, 7, 10, 9].

**The goal of research** is to master and improve practical skills among students from foreign countries of the Faculty of Dentistry on the basis of the Department of Therapeutic Dentistry with a course of extended education institution using innovative teaching methods - the use of models of jaws, phantoms, simulators for practicing and mastering practical skills of preparation of hard tooth tissues and filling of the carious cavity.

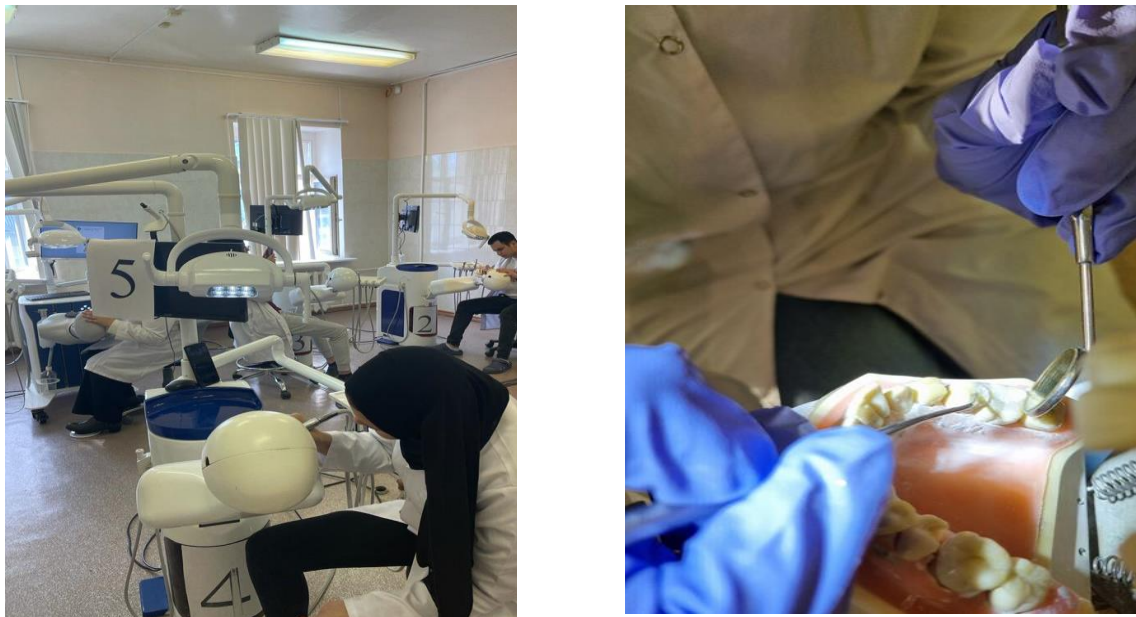
**The main part (methodology and results).** Among foreign students, innovative teaching methods contribute to the qualitative improvement of theoretical knowledge, increase clinical thinking based on the passage of a step-by-step system of phantom-simulation education. Foreign students practice their practical skills depending on the topic of the lesson - methods of complex dental examination of the patient, local anesthesia, preparation of hard tooth tissues and filling of the carious cavity (Figure 1-3). Acquisition, working out and improving practical skills related to the diagnostic process allows you to work out a labor function: conducting a patient examination in order to identify dental diseases of a therapeutic profile and making a diagnosis. Acquisition, working out and improving the practical skill of preparing hard tooth tissues allows you to work out the stages of disclosure, expansion, ne-



crectomy, formation and finishing of the edges of the enamel of the carious cavity. Practicing the sealing skill mainly depends on the class Black.



**Fig.1.** Working out by students from foreign countries of the method of examination of a dental patient



**Fig. 2.** Practical skills of preparation of hard tooth tissues by students from among foreign citizens on simulators





**Fig. 3.** Practicing practical skills of filling the carious cavity by students from foreign countries on simulators

**Conclusions and future prospects.** The use of innovative technologies in the form of practicing and improving practical skills - examination of the oral cavity on simulators is more visual for understanding the algorithm of the diagnostic process, practicing practical skills - preparation of hard tooth tissues and / or filling of the carious cavity has visibility for prescribing and conducting treatment.

The data obtained indicate the need to continue working out the improvement of high-quality practical skills of examination of a dental patient, methods of preparation, filling of the carious cavity in clinical and practical classes in the discipline of therapeutic dentistry by students from foreign countries.

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**IMPLEMENTATION OF THE PRACTICAL SECTION  
OF THE ACADEMIC DISCIPLINE ENDODONTICS  
IN THE PREPARATION OF STUDENTS FROM FOREIGN  
COUNTRIES AT THE DEPARTMENT OF THERAPEUTIC DENTISTRY**

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**Abstract.** The article is devoted to issues concerning practical training in the specialty of Dentistry among students from foreign countries at the Faculty of Dentistry of the FSFEI HE BSMU. Reinforcement of theoretical training in the section of endodontics by working out and improving practical skills of preparation and filling of the root canal system contribute to improving the competence of students, which is the basis for improving their academic performance within the framework of the ongoing educational program in the specialty of Dentistry and Therapeutic dentistry discipline.

**Keywords:** student, practical skills, models of jaws, endodontic teeth

The modern concept of the development of higher medical education is focused on the training of a motivated highly qualified medical specialist who will have the ability to correctly apply clinical thinking with practical skills and abilities [0, 2, 5, 7, 10, 12, 13].

The practical part of the training is a component unit of the educational trajectory in a higher educational institution and includes not only the theoretical part in the form of computer testing, which allows to assess the level of knowledge by solving clinical and situational problems, as well as the level of practical knowledge during practical training, academic research work and independent work of the student in the form of essays, reports, presentations, participation in conferences and olympiads. The effectiveness of the theoretical training of the student is evaluated by the teacher on the basis of the above criteria. Nevertheless, the theoretical and practical training of the student occupies a leading place in the formation of his clinical thinking, as well as increases the ability to learn, develops the need for improvement [3, 4, 6, 9, 8, 11, 13].

**The purpose of this work** is to assess the level of mastering the practical skill of endodontic preparation and filling of the root canal system by students from foreign countries in the section of endodontics of the discipline therapeutic dentistry.

**Materials and methods of research.** Endodontic dissection of the root canal system is used to determine satisfaction with the development and improvement of a practical skill. The assessment of the development and improvement of this skill was carried out by the method of questioning students from foreign countries of the 4th and 5th courses of the Faculty of Dentistry.

**The results of the study and their discussion.** During the period of clinical and practical classes concerning the issues of endodontic treatment of complicated caries at the Department of Therapeutic Dentistry with the course of the extended education institution, foreign students of the 4th and 5th courses have the opportunity to monitor their theoretical knowledge into practical ones due to the presence of phantom-simulation education. Students work out not only the stages of determining the working length, instrumental and medical treatment of the root canal system, but also the stages of their filling using various methods on models of jaws and endodontic teeth (Fig. 1, 2).



**Fig. 1.** Working out by students from foreign countries of the practical skill of dissection and formation of the root canal system





**Fig. 2.** Working out the practical skill of filling the root canal system by students from foreign countries

The assessment of the practical skills performed is satisfactory, corresponds well to the identified errors during endodontic dissection, when the boundaries of the carious cavity and tooth cavity, root canal mouths, working length, passage, expansion and formation of the root canal system are not observed, excellent with all manipulations performed correctly.

At the stage of practicing practical skills by foreign students of the 5th year with the use of tactile phantoms (jaw models and endodontic teeth), 55% of students performed preparation and formation of the root canal system for an excellent grade, 41% for a good grade, 14% for a satisfactory grade. Among the 4th-year students, 22% of the individuals tested the skill for an excellent grade, 49% and 38%, respectively, for a good and satisfactory grade.

Based on a survey of students from foreign countries of the 4th and 5th courses of the Faculty of Dentistry who passed clinical and practical classes according to the thematic plan and work programs, data were obtained that they prefer to work on jaw phantoms and endo-

dontic teeth. This allows them to better understand the clinical aspects of complicated caries, to understand the structure of the root canal system.

### **Conclusions and future prospects.**

1. The results obtained indicate the need to practice practical skills on models of jaws and endodontic teeth, which reflects modern requirements for the level and quality of training of a future dentist.

2. The analysis of the development of a practical skill, that is, preparation of the root canal system showed that students from foreign countries are ready to actively use and improve the development of practical skills on models of jaws and endodontic teeth.

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### **INTERNSHIP OF FOREIGN STUDENTS**

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The students' industrial practice is an integral part of the main educational program of higher professional education in the training of highly qualified specialists. The purpose of the practice is to test and consolidate the knowledge gained in the study of basic clinical and theoretical disciplines, further deepening and improving the practical skills acquired at the academy.

Key words: practical training, international students, hospital.

In the context of Russia's inclusion in the world educational space, the growth of exports of education, the increase in the share of foreign students, the digital transformation of education, special attention is paid to practice-oriented learning of students, the design of higher education programs taking into account the requirements of professional standards, and the planning of learning outcomes as professional competencies that allow the implementation of labor functions.

An important stage of learning is the production practice, which is a boundary object, turned by one side into the educational process, and the other into real professional activity.

When organizing stationary practice for students from among foreign citizens studying using an intermediary language (English), a dispersed form of practice is used under the guidance of a teacher who knows a foreign language at the level of free communication. This contributes to individual learning of skills and abilities, explanation of the algorithm of the procedure in a form and language understandable to the student.

Foreign students traveling for internship outside the Russian Federation, 2 months before the start of the practice, receive forms of documents in the practice department (agreement, passport of a medical organization, application), 1 month before the start of the practice, they provide the completed documents to the practice department (bilateral agreement on practice of students, passport of a medical organization (practice base), an application signed by the vice-rector for academic affairs, dean of the faculty, head of the practice department).

According to organizations, foreign students show good knowledge and demonstrate the correct algorithms for performing manipulations, which allows the hospital administration to assign students to work as post and procedural nurses of clinics.

Before the internship, all foreign students work out their skills in the simulation center. Simulation training has a number of advantages over traditional forms of training. When it is performed, the development of manual skills is carried out without risk for the patient with an unlimited number of repetitions, which makes it possible to work out the methodology for providing medical care in emergency and life-threatening conditions individually, and at the same time allows you to develop team interaction. After simulation training, the student is allowed to work in the treatment room, dressing room. The development of the analytical skill is carried out at the bedside with the active participation of the head of practice assigned to a group of foreign students. Students from among foreign citizens who study using the intermediary language (English) during the internship at the workplace are instructed on the rules of

fire safety, labor protection, safety and sanitary and epidemiological rules and hygiene standards, comply with the rules of labor protection and internal regulations, as well as safety and industrial sanitation, operating in a medical organization, carry out an internship program and individual tasks, participate in research work under the guidance of a university and (or) basic practice supervisor or at their own request, as well as in thematic scientific and practical conferences in medical organizations, participate in outreach work among the population and public life of the staff of the medical organization, keep a diary of practice with a daily reflection of the content and volume of work performed

Foreign citizens-graduates of a medical university, regardless of the specialty they receive, must have the necessary competencies in the field of preventive medicine, carrying out preventive and anti-epidemiological measures aimed at preventing the occurrence of an infectious pathology characteristic of the countries that sent them to study in Russia.

In this regard, a special role in the training of future clinicians is assigned to the study of epidemiology during research work, which contributes to the acquisition of population thinking skills.

As evidenced by the experience of conducting independent educational and research work, this form of training contributes to the acquisition of in-depth knowledge and practical skills of the epidemiological approach to the study of actual types of pathology in the region of residence among various population groups, which will allow future clinical specialists to carry out reasonable preventive and anti-epidemic measures based on autopsy causal relationships.

At the end of the practice, students from among foreign citizens studying using an intermediary language (English) draw up a written report with digital data and submit it to the head of the university along with a diary signed by the base head of the practice. At the end of the internship, the head of the medical organization (on the recommendation of the base head of the practice) gives a description to the student, which reflects the level of theoretical training, mastery of practical skills in accordance with the requirements, compliance with the principles of medical ethics, attitude to work and participation in the public life of the team, in research and outreach, implementation of the practice program. The results of the internship are evaluated through an intermediate certification. The practice ends with the defense of the practice report, which is an intermediate certification of students.

Thus, industrial practice becomes the core basis of the educational process at the university. The learning process in specialized large clinics acquires a new meaning, turning into a process of learning into a process of acquiring knowledge, skills and experience in order to achieve professional socially significant competencies, encourages striving to deepen knowledge, forms analytical, predictive and communication skills, stimulates the need in improving their professional competence and intellectual independence.

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## **FUNDAMENTALS OF MOLECULAR GENETICS IN STUDYING THE COURSE OF BIOLOGY TO FOREIGN STUDENTS**

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Molecular genetics being a branch of genetics that studies the mechanisms of heredity and variability at the molecular level, is currently a complex science that permeates many branches of biology. It is being adopted by a growing circle of researchers and often serves as the methodological basis for many sections of modern biology and medicine.

The discipline Biology refers to the basic part of the professional cycle in the direction of preparation "Medicine" for students of the 1st year. The section "Fundamentals of Molecular Genetics" covers a number of issues related to the structure and properties of the main biopolymers of a living cell, methods for their study, and the processes of expression of genetic information in which they are involved. Within the framework of this section, the basics of heredity and variability of living beings are studied by studying the transmission processes occurring at the subcellular, molecular level, the method of storing, implementing and changing genetic information.

The content of the section included a number of issues, such as the structure and functions of nucleic acids (DNA and RNA), the genetic code and its properties, the Central dogma of molecular biology, the patterns of structural and functional organization of genes in prokaryotes and eukaryotes, the processes of regulation of gene expression, the stages of protein biosynthesis. Practical classes widely use digital technologies (for example, the ROCH computer program, watching videos from Internet resources, testing on the TEAMS platform), as well as traditional illustrative material in the form of drawings on the board, posters, diagrams, and photographs. This greatly helps in the formation of students' knowledge of molecular genetics.

The section "Fundamentals of Molecular Genetics" is included in the second part of the course "Genetics", so it should lay the foundation for understanding the molecular patterns of classical heredity and variability. We are talking about the laws of G. Mendel - the laws of independent inheritance of traits, and the laws of T. Morgan - the laws of linked inheritance. In addition, the processes of formation of genetic variability, the methods of anthropogenetics cannot be understood without fundamental knowledge of molecular genetics.

The modern possibilities of digital technologies are especially indispensable when conducting distance learning with foreign students. Consideration of the processes of transcription and translation, which are difficult to understand, during which hereditary information is rewritten to informational (matrix) RNA and protein is synthesized, as well as the solution of typical and situational problems in molecular genetics, became possible on the MC Teams platform thanks to the use of a joint board. This gave students the opportunity to prescribe the course of solving a particular problem under the supervision of a teacher. It should be noted that during the practical lesson, there may be tasks performed by students, homework, as well as intermediate tests with multiple choice answers or with an open answer to a



question to test students' knowledge. MC Teams allows us to build a unique form of questions, assign a certain score for the correct answer and set the date and time for solving tasks.

The "Molecular Genetics" section is of practical importance, since modern medicine cannot do without knowledge of molecular genetics. This applies to such areas of practical medicine as medical genetic counseling, identification of genetic predisposition to certain multifactorial diseases, prenatal diagnosis of congenital hereditary pathology, etc. It should be noted that fundamentally new areas of medicine of the future are largely based on molecular genetics. This applies to such new areas as molecular medicine, oncogenetics, psychogenetics, pharmacogenetics, gene therapy, etc. Therefore, a modern doctor must have a good understanding of the molecular genetic foundations of the organization and functioning of the human body.

The "Molecular Genetics" section expanding and supplementing the basic knowledge of students about the molecular organization of hereditary material, will contribute to an in-depth understanding of all other sections of genetics, including its modern aspects. Knowledge of the basics of molecular genetics is an important prerequisite for studying such subsequent disciplines as "Human Genome", "Cytogenetics", "Medical Genetics", "Nano- and Cell Technologies in Biology and Medicine", "Biochemistry of Cell Cultures" and many others.

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### **FORMING STUDENTS' INDEPENDENT WORK SKILLS USING AN INTERMEDIATE LANGUAGE FOR THE DISCIPLINE PHARMACOLOGY**

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**Annotation.** In the article, we present the experience of organizing independent work of students of a medical university, using the example of a pharmacology course using a set of tasks and assignments.

**Keywords.** Independent work of students, pedagogical conditions, a set of tasks and assignments.

The federal state educational standard of higher education considers independent work of students as one of the necessary components of the training of future specialists. At present, the curricula allocate an increasing number of hours for independent work, which is quite natural, since modern society sets the task of preparing not only "knowing", but also, mainly, "thinking" and "able to extract independently » the knowledge and skills necessary for practical activities, actively "shaping" the competencies necessary for a particular specialist [1].

At present, independent work is increasingly using computer technology, which allows regular monitoring, including online, to organize independent work as an interactive interac-

tion between the teacher and students, expands opportunities, including spatial and temporal, for communication, therefore, we consider it relevant to study and approbation of various methods of organizing students' independent work using computer learning technologies [2].

In pedagogy, the issues of organizing students' independent work are raised not for the first time, in different years, taking into account the development of technology and technology, attempts were made to determine the essential content, the intension of the concept of "independent work", the definition of pedagogical conditions that contribute to the activation of students' independent work (L.G. Vyatkina, M. (G. Garunova, N. G. Dairy, B. P. Esipova, I. I. Ilyasov, I. L. Naumchenko, N. D. Nikandrov, P. I. Pidkasistoy, V. L. Shatunovsky, etc.)

A large number of works by V.P. Bepalko, M.I. Eretsky, G.E. Kovaleva, N.A. Morevoy, V.A. Pokhmelkina, N.F. Talyzina and other researchers are devoted to various aspects of the organization of independent work, ways to improve it.

As pedagogical conditions for organizing independent work of students of a medical university, we have identified two conditions: the construction of an educational process in the study of professional disciplines based on a set of tasks and assignments, as well as the use of computer technologies aimed at enhancing cognitive activity and cognitive independence of students.

The formation of professional thinking of future medical specialists largely depends on the effectiveness of the methods and means of mastering practical skills and interaction skills used in the educational process. A medical specialist living and working in modern conditions, in practice, must have information about the variety of medicines and monitoring the pharmaceutical market. Therefore, to conduct practical classes in the course "Pharmacology", the teacher should choose the most effective means for the development of the student's clinical thinking. In our opinion, such a method is "solving situational tasks". In addition to the formation of professionally significant diagnostic skills among students, the solution of situational tasks contributes to the systemic perception of the material, taking into account the integrity of the human body.

The complex of tasks consists of situational tasks of different levels of complexity, tasks for writing out prescriptions, test tasks of various types.

The specificity of the situational task lies in the fact that it has a pronounced practice-oriented character, but specific subject knowledge is required to solve them. A mandatory element of the task is a problematic question; in the process of finding an answer to this question, the student builds an answer to this situational task.

Here are a couple of examples of situational tasks.

Task. Pharmacy visitor: Good afternoon. My child has a temperature. Please advise what can I buy?

Superintendent: Good afternoon. Tell me, please, how old is the child?

Visitor: 3 years.

Pharmacist: What else worries the child?

Visitor: Sore throat, runny nose.

1. What other aspects should a pharmacist clarify before offering a drug?
2. What preparations can be offered to the visitor?
3. What is an NSAID? What pharmacological effects are typical for this group of drugs?
4. What are the adverse drug reactions?
5. Justify your answer.

Another type of task is to determine the drug by pharmacological characteristics. Such tasks are aimed at revealing theoretical knowledge in the course of pharmacology, as well as skills, based on the specifics of diseases and various treatment regimens, to identify the most optimal drug.

Task. Determine the drug according to the following characteristics: the drug reduces the strength and frequency of heart contractions, myocardial oxygen demand, blocks the ac-

tion of isadrin, increases bronchial tone. Used for angina pectoris, cardiac arrhythmias, hypertension. It has a depressant effect on the central nervous system. Contraindicated in peptic ulcer of the stomach and duodenum, as well as hyperacid gastritis.

Task. Determine the drug according to its characteristics: it reduces intraocular pressure, increases the secretion of the glands of the stomach and bronchi, causes bradycardia and increases muscle tone. It is used for glaucoma, paresis, as an antagonist of anti-depolarizing curare-like drugs.

There are also a number of tasks aimed at shaping the professional thinking of future medical specialists who model situations of working with patients.

A frightened woman with a child came to the phthisiatrician. After taking the drug in a child, urine, saliva, tears are colored bright orange.

Questions:

1. What drug did the child take?
2. Why did this happen?
3. Doctor tactics?

The use of computer technologies for organizing independent work creates a number of fundamentally new opportunities: it ensures the prompt transfer of tasks to students, interactivity and prompt feedback; teaches how to use various search engines to obtain information on an issue of interest; develops the technical skills and abilities necessary for Internet users to communicate and collect information; teaches to analyze and synthesize knowledge into a single whole; provides access and selection of various sources of information; is a very convenient tool for creating training programs, massive open online courses. The teachers of the Department of Pharmacology with the course of clinical pharmacology developed and presented in the distance learning system a number of independent works, which include multi-level tasks and assignments.

Currently, when organizing independent work of students, computer technologies are being actively introduced. At the same time, we are talking not only about personal computers, laptops, but also about various gadgets in general that have access to the Internet. These technologies do not change the essence of independent work and, on the contrary, make it possible to implement all the necessary interaction activities that were planned by the teacher in advance. This was especially true during the pandemic, when some students of medical universities were involved in the work of medical institutions. Computer technologies make it possible to automate this process, significantly reduce its time, make it possible for the student to study the necessary educational and methodological materials at any time convenient for him. This is done through the development of a course in the discipline. Its content is determined and developed by the teacher and is largely determined by the nature and content of the academic discipline itself.

Systematic and regular work on the organization of independent work using a set of tasks and assignments, as well as the active purposeful introduction of computer technology in the organization of independent work, is directly reflected in the educational success of future specialists.

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**MODERN METHODS OF INCREASING THE COGNITIVE  
ACTIVITY OF FOREIGN STUDENTS OF THE PEDIATRIC  
FACULTY OF A MEDICAL UNIVERSITY**

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**Abstract:** The article analyzes the problems associated with teaching foreign students at the Bashkir State Medical University. The latest information, communication and innovative simulation technologies aimed at providing medical care to the children's population, included in the process of teaching foreign students, are highlighted.

**Keywords:** medical education, pediatrics, foreign students

The integration of the modern Russian system of higher medical education into the international educational space poses new challenges and conditions for the adaptation of educational services to the leadership of the university and the teaching staff [2, 4, 5]. Education of foreign students is an indicator of the status of an educational institution, increases the competitiveness of the university in the international arena [1, 3]. Getting an education in Russia is very attractive for students from different countries, which is associated with a relatively inexpensive cost of education, an affordable standard of living, a friendly attitude of the population, and tolerance for various religious views of foreigners.

Thus, the influx of foreign students poses a number of important problems for the medical university related to the adaptation of foreign students to the educational process, requiring immediate solutions and an individual approach.

Today, more than 2,358 foreign citizens from 54 countries of the world study at the Bashkir State Medical University. Basically, these are students from Egypt, India, the countries of Central and Central Asia and Africa. Therefore, the university approaches the training of teaching staff with a great deal of responsibility. To this end, at Bashkir State Medical University, on a permanent basis, teachers are trained in English, during which they comprehend the grammatical foundations of the language, study special medical terminology, and learn to communicate freely with foreign students. At the same time, this contributes to an increase in the erudition and cognitive abilities of the teacher, provides an opportunity to attend and make presentations at international conferences and symposiums abroad [7, 9].

In our opinion, one of the fundamental problems of teaching foreign students is the formation of groups taking into account caste and religious affiliations. Therefore, teachers of a medical university should know the features of life and life, manners of communication, religious views, culture of different countries in order to build trusting relationships with students.

One of the key roles in the preparation of foreign students on the basis of Bashkir State Medical University is played by the latest computer technologies - the websites of the university and departments, plans, methodological development of lectures, practical exercises, independent work, topics for individual work, work in the library with electronic resources, textbooks and medical periodicals etc. During classes in computer classes, role-playing educational games, distance learning, testing, working with cases, using interactive Padlets and Trello boards are used. These digital technologies are used with great success in teaching foreigners. They are understandable, visual, arouse interest in teaching and research activities [6, 8].

One of the attractive opportunities for foreign students to get an education at Bashkir State Medical University is the openness in mastering practical skills at the bedside with their previous development on modern simulators.

On the basis of the Department of Polyclinic and Emergency Pediatrics with a course Institute of Additional Professional Education course of the Bashkir State Medical University,

simulation training is conducted for foreign students to master the skills of providing emergency and emergency care to children in a critical situation. During the lesson, the student is offered a simulated practical situation (for example, anaphylactic shock, obstruction of the upper respiratory tract, etc.) for providing emergency care to a child of a certain age with a full range of resuscitation, therapeutic measures and further routing of the patient. A foreign student masters the skills of an objective examination of a patient, vital in real medical practice, the use of basic cardiopulmonary resuscitation techniques on a specialized simulator - animated Anna using a portable device SimPad Plus. During the master class, the student determines the signs of a child's life, identifies the causes of respiratory and circulatory disorders, masters the technique of artificial respiration and indirect heart massage of the patient, taking into account the specifics of cardiopulmonary resuscitation in children.

The provision of first aid to eliminate obstruction of the upper respiratory tract is carried out using the traditional Heimlich maneuver. The technique is not complicated, it is carried out by developing the technique of removing a foreign body from the upper respiratory tract using a special mannequin-simulator.

During the practice of practical skills on phantoms, the teacher can evaluate the effectiveness of the implementation of practical skills, together with the student, analyze the mistakes made and develop the correct technique during the training.

As a result of the symbiotic use of digital technologies and simulation techniques, we assume that students will develop the skills necessary for further work in providing emergency care to children at the prehospital and hospital stages.

Thus, the medical education of foreign students is a multifunctional task, in which the leading role is assigned to the competence and motivational abilities of the teacher, who must prepare a highly qualified specialist, adapted not only to independent work, but also to certain working conditions in his native country.

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## DIGITAL TOOLS IN LEARNING STUDENTS OF PEDIATRIC FACULTY

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**Abstract:** The article discusses digital technologies that can be used for interactive teaching of graduate students of the pediatric faculty. We will demonstrate the benefits of using virtual boards in education.

**Keywords:** Miro, Trello, Padlet, virtual boards, digital tools, digital learning, interactive teaching, education, pediatric, students.

Modern education must necessarily use various digital technologies, the knowledge and skillful application of which demonstrates a competent approach to teaching. Skills in using digital tools are necessary at all stages: working with documentation, designing presentations, presenting lecture material, conducting practical exercises and monitoring knowledge development. Important in the work of a teacher is not only an interesting and accessible presentation of content, but also the involvement of students in the educational process. The interactive work of students creates personal interest and in many ways improves the quality of education, turning static classes into a dynamic learning process. Students at the same time move from passive listeners to active creators.

Virtual interactive whiteboards are one of the most popular digital technologies in education. This intelligent technology opens up a wide range of learning opportunities for both students and educators.

Here is a list of the most important benefits of using a virtual whiteboard in teaching:

- possibility of joint work, unite the team to complete the task;
- have a simple and intuitive interface;
- make the learning process more visual through visualization;
- students can save any whiteboard content and share it via social media, email, or a link to a resource.
- allow you to monitor the progress of the project online;
- universal in use: at lectures, practical classes or for independent work.

There are many different types of virtual interactive whiteboards. We will talk about some of them.

**Miro** is an online application designed for use in education and is compatible with all devices, operating systems and browsers (pic.1). Like all virtual whiteboards, it allows you to place any content necessary for learning: images, documents, files and videos, allows you to share educational materials and save everything you need in one place [1,6].

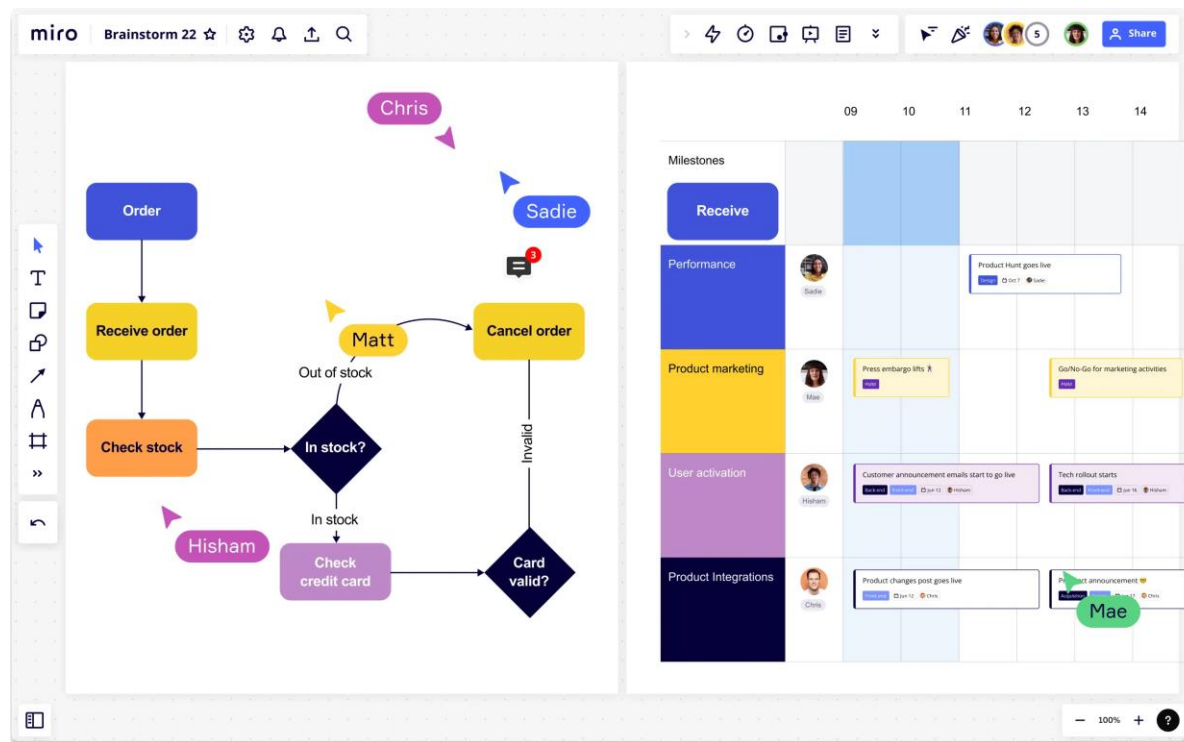


Fig.1.

**Trello** is a project management software, including training (pic. 2). This interactive whiteboard unites a group of students to solve the set tasks, and is equipped with effective tools for both visualization (checklists, cards, attachments, lists of participants) and control (deadlines, action history, comments, tags). Students or teachers can create task boards with columns that have different statuses (for example, Planned, In Progress, Done) and as they work, tasks are moved to the correct column according to the status [8].

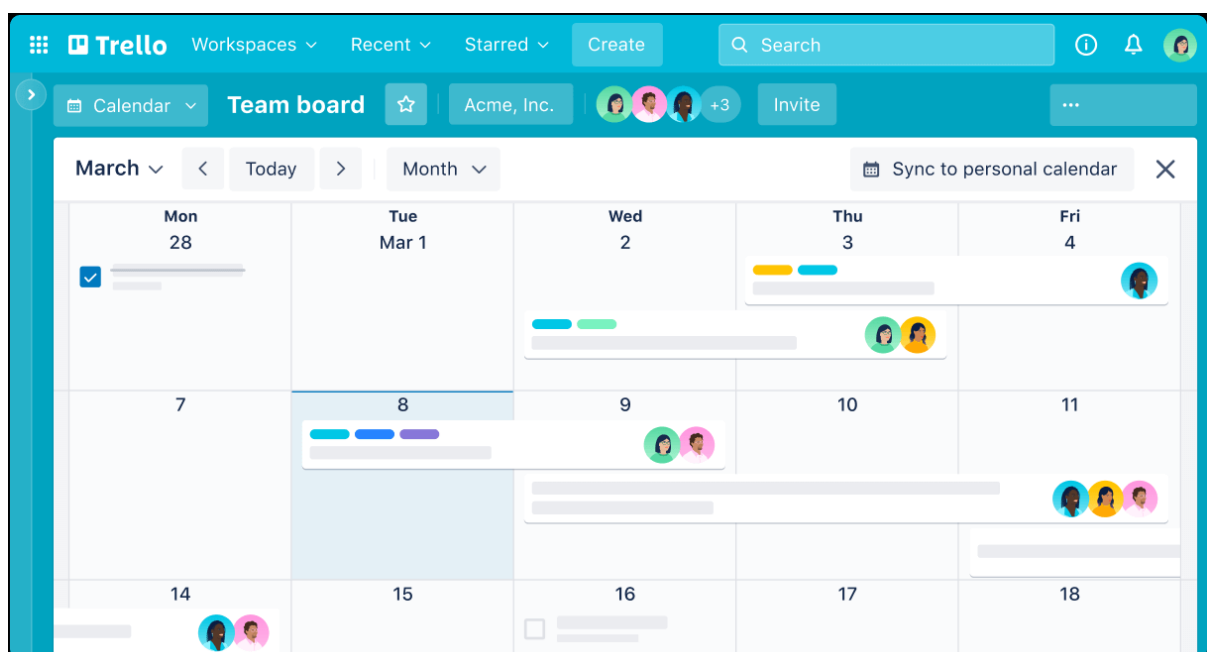


Fig. 2

**Padlet** is an application that also allows users to post content on a virtual wall [5,7]. All downloaded information is available from any device with Internet access. Notes can include images, links, and videos, and can be placed in a different order depending on the task at hand: timeline, map, columns, wall, collage (pic. 3). Students interest in working with this digital tool can be enhanced by features such as emoticons, a choice of whiteboard back-

grounds, funny statuses. Padlet has the ability to share a board with information even with those who are not registered in the application. This can be done using a QR code or a direct link.

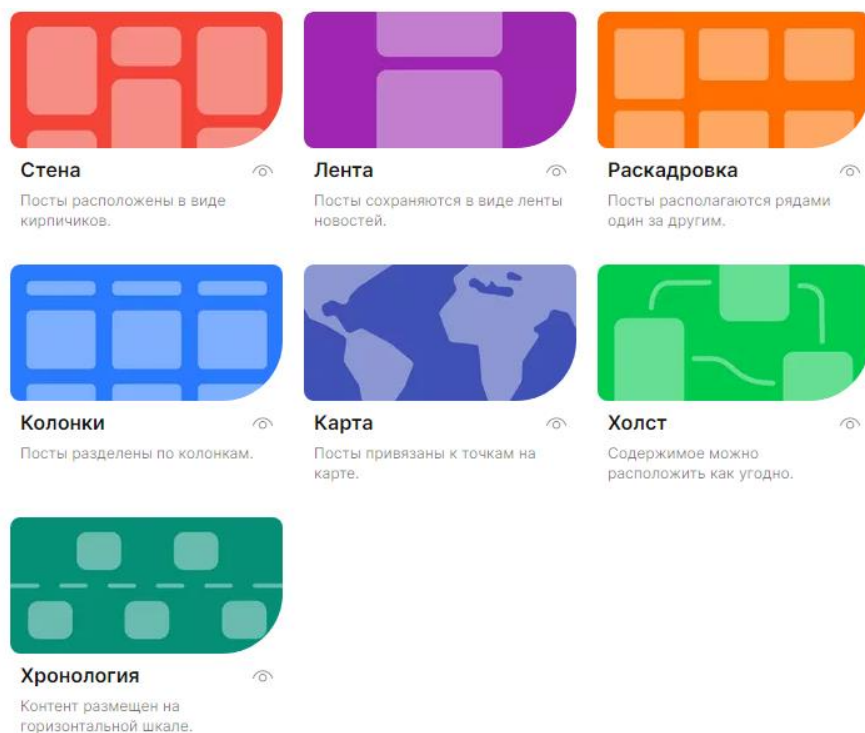


Fig.3.

At our department, the Padlet application is used during practical classes. The advantages of this digital tool are ease of use, minimal operating requirements, diverse possibilities of use, and increased opportunities for practical training. The teacher has the ability to administer, connect new members to the group, can monitor the ongoing work in real time, add comments and remarks. An example of student collaboration is shown in Picture 4. The materials posted on the board are stored in a cloud service and can later be used by students to prepare for exams.

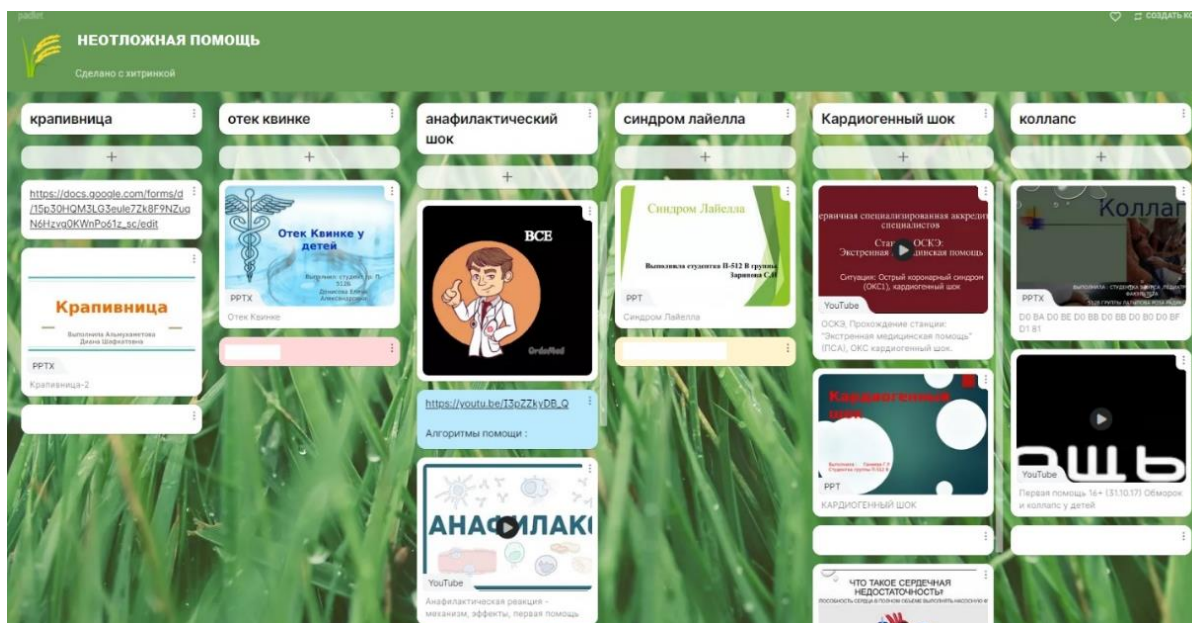


Fig. 4



Thus, the use of a virtual interactive whiteboard makes the learning process more convenient, interesting and visual. Groups of students alone or together with the teacher can create individual online boards with important information posted on them, which will be available at any time [2]. Unlike a real whiteboard, there is virtually no space for placing material. All participants will also be able to follow each change made online.

For teachers, an online whiteboard is an effective digital tool that allows you to place information in one virtual space. The indisputable advantage of this tool is the possibility of remote use, which does not require the presence of students in the classroom [3,4]. Saved virtual whiteboards with educational materials can be used repeatedly, constantly working on improvements. This is a digital technology for solving creative problems in various learning formats.

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### **IT-TECHNOLOGIES AS A WAY TO TEACH PHYSICAL EDUCATION AND SPORT TO FOREIGN STUDENTS UNDER PANDEMIC CONDITIONS AT BSMU**

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**Abstract.** In the article methods of distance learning organization with application of IT-technologies in foreign students on the subject "Physical training and sport" are considered. The teaching staff of the Department of Physical Education was flexible and was able to

adapt to the new realities in a short period of time. On arrival and departure of foreign students to full-time education, a survey was organized for further improvement of the educational process under the conditions of pandemic.

Key words: distance learning, students, pandemic, IT technologies.

The education system was also faced with new challenges during the pandemic. Face-to-face classes became impossible during the spread of the viral infection. Educational institutions, including BSMU, switched to distance learning. The teaching staff and students communicated using information and communication technologies (IT-technologies). The teaching staff of the Department of Physical Education conducted distance learning for foreign students using such programmes as "Microsoft Teams", "Zoom". Insufficient technical equipment hampered the full-scale use of "Microsoft Teams" program. Several groups of students attend classes at the same time. Computers equipped with cameras, loudspeakers, connected to the Internet and set up in the space to demonstrate physical activities are not sufficient for everyone. Messengers "WhatsApp", "Telegram" were used as a means of communication.

During the pandemic, all universities in all regions of Russia and around the world switched to distance learning. This topic has been widely covered by the scientific community in recent years [1,2,3]. At the same time, the topic has been little studied, taking into account distance learning of practical specialities, including physical education. This was the reason for the study.

During the transition to distance learning, foreign first year students from far abroad were not able to come to Russia. There was an urgent need to establish communication and launch the educational process with students who were on other continents and did not understand Russian well. There was a need to adapt the subject to the home environment. During face-to-face classes, a spacious gym and a variety of equipment are at the teacher's disposal. But physical education classes at home are held in unequipped rooms without any equipment. The national and cultural peculiarities of the students are also taken into account. The national dress of girls in some countries restricts their movements, which prevents them from exercising properly and can lead to injuries. Recommendations were made for appropriate sportswear. The Department of Physical Education and the "Media Centre" of BSMU formed a database of methodical videos, with an accessible explanation and demonstration of basic exercises of gymnastics and fitness [4]. The exercises were adapted to home conditions without the use of simulators and special equipment. After the formation of the groups, each instructor during the first distance physical education session demonstrated an introductory video with English subtitles, introducing in detail the sporting life of the BSMU. The physical education classes, due to the lack of technical equipment, were conducted on smartphone platforms using Zoom software. Some difficulties of distance learning physical education and sports classes for international students were identified. The first problem is the time difference. The groups are made up of learners from different countries and continents. For some students, the time difference is very big and it is very difficult. The education system in Egypt, India, Africa is very different from the education system in the Russian Federation [6]. In India, for example, spiritual development is given more attention than physical development. The lack of knowledge of basic gymnastics and fitness among foreign students initially made it difficult to conduct classes. During physical education classes, the instructor supervises the safe execution of exercises. The performance of technically difficult exercises can lead to injuries. Without knowing the basics of gymnastics and fitness it is very difficult to achieve this goal. The teaching staff of the Department of Physical Education have also met this challenge. The foreign students learned to perform the exercises in a relatively short period of time. Some students complained about the instability of the Internet in their country. Due to this, there were difficulties in reaching or disconnecting some learners during the exercises. Rollers were safely used. Learners with limited Internet access and inadequate technical equipment have been able to complete the quizzes on physical education subjects.

To further improve the educational process in a pandemic environment, a “Google Form” survey was conducted after the arrival of international students in Russia. More than 500 students took part in the survey. The respondents chose the most effective means of distance learning in the discipline of “Physical education and sport”. 77 per cent of respondents chose “Zoom”. 12 per cent wanted to do a “Microsoft Teams” lesson. 11 per cent voted to do abstracts. All of the students noted the health-promoting effect of remote physical education classes. Many came to the opinion that physical education classes helped to reduce stress and improve psycho-emotional state in isolation.

After organizing the educational process during the pandemic, conducting a survey among students, we can conclude that none of the distance learning options can replace face-to-face classes in the discipline of "Physical Education and Sport". During the classes the teacher controls the safety, demonstrates the exercises visually. Classes take place in a cosy hall or outdoors using a variety of equipment. Students socialise, exercise and leave the class happy. As official World Health Organisation (WHO) statistics show, the incidence of new strains of coronavirus is increasing and distance learning may be repeated more than once [5]. Therefore, this topic remains relevant and requires further improvement.

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### **FEATURES OF TEACHING PROPAEDEUTICS OF INTERNAL DISEASES FOR FOREIGN STUDENTS IN THE INTERMEDIATE LANGUAGE**

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**Annotation.** The article summarizes the experience of teaching propaedeutics of internal diseases to foreign students using an intermediary language. The main problems include communicative (linguistic), socio-cultural, psychological, behavioral problems, lack of motivation and low primary school educational level. The main ways of their solution are proposed. The medical education of foreign students must be based on the humanistic principles of the Russian national medical school. Additionally it is necessary to educate foreign students psychologically and practically for a well-known problems of modern medicine in developing countries. A special step-by-step psychological and bilingual preparation of students before the first visit to patients is mandatory. Bilingual guidelines, textbooks, training programs provide significant assistance in learning.

**Keywords:** propaedeutics of internal diseases, education, bilingual guidelines,

The Bashkir State Medical University (BSMU) has experience in teaching foreign students for more than 15 years. Currently, almost 2,500 foreign citizens from 54 countries are studying at BSMU in an intermediary English language.

Teaching foreign students is associated with complex features of linguistic and communicational problems, socio-cultural and religious peculiarities, psychological and behavioral difficulties, insufficient school educational level, improper educational motivation [1,2].

At the beginning of clinical education, special attention should be paid to the ethical basics of modern medicine. It is obligatory to study and discuss the Hippocratic Oath. Also it is necessary to systematically promote the basic humanistic principles of the Russian national medical school. We also recommend to inform foreign students about great medical achievements of ancient oriental civilizations of India, Iran, China, Egypt, the medieval Arab countries of the Middle East and Africa.

Clinical work of students with real patients is the main part of the subject training. Majority of foreign students have a certain psycho-linguistic barrier to start communicating with patients in Russian. Special psychological and linguistic preparation of students before the first visit to patients is mandatory. It includes several steps. First, a bilingual discussion of the clinical interviewing is carried out in the training room with the presentation of the "doctor-patient" dialogue in the intermediary language and Russian. Then the teacher initiates a bilingual role-playing game "doctor-patient" with the participation of students. After that, the teacher demonstrates a real dialogue "doctor-patient" in the hospital ward. Then students individually interview patients in the presence and with the support of the teacher. Clinical discussions should be widely used. The presentation of student's educational case history is also carried out in the form of a clinical discussion. Also significant assistance in solving this problem may be provided by bilingual guidelines, textbooks, training programs.

Also it is necessary to ensure the active work of every student at each practical lesson. To do this, we propose brief tests of the initial knowledge. Then the teacher manages the collective manual skills training with the active participation of each student.

The wide involvement of foreign students in the student's clinical research is very helpful. Many foreign students actively participate in conferences of young scientists held both in the intermediary language and in Russian. Student's research motivation increases in case of proposed publications of their study results in a medical journal.

A common problem for foreign students of early courses is the idea of their future specialization as an isolated part of medicine. In particular, second-year students ask to be taught how to operate exclusively, since they are going to become surgeons and they are not interested in other areas of medicine. In this case, a clinical example of a real patient should be given, the diagnosis and treatment of which have a pronounced multidisciplinary character. Thus, the student should form a holistic, balanced, philosophically justified worldview on the process of development of modern medicine. The so-called "pure technicism" in modern medicine should be critically assessed, where direct communication with the patient is replaced by an assessment of these high-tech examination methods.

When teaching propaedeutics of internal diseases, it is necessary to prepare foreign students psychologically and practically for developing countries medicine problems solving. It is useful to discuss with the foreign medical students the following issues: a) high prevalence and outbreaks of infectious diseases - malaria, Ebola, cholera, typhoid, HIV, etc., b) medical implications of military conflicts and natural disasters such as floods, droughts, earthquakes with a large number of victim, c) insufficient resource and logistical provision of regional health care, extremely intensive further work as a doctor, a large number of patients visiting a doctor, which can reach several hundred people a day.

It should also be noted that the school educational level of some students is not always sufficient. We have met some cases of very weak knowledge in the field of mathematics,

physics, chemistry and other basic subjects. The only way to help the students is to recommend them to study that subjects themselves according to the needs of medical education.

Necessary attention should be paid to some specific educational issues. Some students were brought up in conditions of strict socio-cultural and religious restrictions. When such foreign students begin to live independently in an environment of significantly less restrictions, then some of them demonstrate the significant decrease in their motivation to study. In our experience, a direct educational appeal to the student is not effective enough. To increase the effectiveness of educational impact, one should take into account the socio-cultural characteristics of oriental societies, where family relations are the strongest. If the student is informed that his family will be disappointed by his academic progress than student's educational motivation restores effectively.

Conclusion: language, psychological and socio-cultural problems are the main ones in clinical training teaching foreign students. Their prevention and timely solutions are necessary for the effectiveness of education.

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## CONTENTS

<b>PROSPECTS OF INTERNATIONALIZATION OF MEDICAL EDUCATION IN THE BSMU OF THE MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION</b>	
<i>Paylov V.N.</i> .....	3
<b>COMPETENCE- BASED APPROACH IN TEACHING BIOCHEMISTRY TO FOREIGN STUDENTS</b>	
<i>Abdullina G.M., Karyagina N.T., Galimov Sh.N.</i> .....	5
<b>INTERNSHIP ON OBTAINING PROFESSIONAL SKILLS AND EXPERIENCE IN PROFESSIONAL ACTIVITIES, INCLUDING SCIENTIFIC RESEARCH WORK WITH INTERNATIONAL STUDENTS OF THE DENTISTRY FACULTY AS AN INTEGRAL PART OF THE EDUCATIONAL PROCESS</b>	
<i>Aflakhanova G.R., Chuikin S.V., Makusheva N.V., Ganieva R.A.</i> .....	9
<b>CONDUCTING "DENTAL HEALTH LESSONS" BY INTERNATIONAL STUDENTS IN SCHOOL EDUCATIONAL INSTITUTIONS OF THE CITY OF UFA</b>	
<i>Aflakhanova G.R., Chuikin S.V., Makusheva N.V., Ganieva R.A.</i> .....	11
<b>METHODICS OF TEACHING LATIN LANGUAGE AT MEDICAL UNIVERSITY FOR FOREIGN STUDENTS ON THE BASIS OF MODERN REMOTE PLATFORMS AND IMPLEMENTS</b>	
<i>Aleksandrova D.A., Minnigaleeva A.A.</i> .....	13
<b>INNOVATIONS IN THE ORGANIZATION OF THE EDUCATIONAL PROCESS FOR FOREIGN STUDENTS AT THE FACULTY THERAPY DEPARTMENT</b>	
<i>Andrianova O.L., Mirsaeva G.Kh., Mavzyutova G.A., Kamaeva E.R., Khakimova R.A.</i> .....	15
<b>ON SPECIFICS OF FILLING OUT DOCUMENTS ON HIGHER EDUCATION AND QUALIFICATIONS FOR FOREIGN CITIZENS</b>	
<i>Bodrov A.V., Janibabu Sharmila U.U.</i> .....	18
<b>THE PROBLEM OF STIMULATION OF SCIENTIFIC INTEREST OF INTERNATIONAL MEDICAL STUDENTS</b>	
<i>Chuikin S.V., Makusheva N.V., Akatieva G.G.</i> .....	20
<b>PROBLEMS OF TEACHING THE DISCIPLINE OF CHOICE "MODERN METHODS OF TEETH WHITENING" TO INTERNATIONAL MEDICAL STUDENTS</b>	
<i>Chuikin S.V., Akatieva G.G., Makusheva N.V.</i> .....	22
<b>TEACHING TOXICOLOGICAL CHEMISTRY TO INTERNATIONAL STUDENTS: ORGANIZATION, FEATURES, OPPORTUNITIES</b>	
<i>Dianov V.M., Urazbaev M.A., Klen E.E., Sharipov I.M., Rozit G.A.</i> .....	24
<b>ORGANIZATION OF THE EDUCATIONAL PROCESS USING THE INTERMEDIARY LANGUAGE (ENGLISH) AT THE DEPARTMENT OF PATHOLOGICAL ANATOMY</b>	
<i>Diveeva G.D., Mustafin T.I.</i> .....	26
<b>TEACHING METHODOLOGY AT MEDICAL SCHOOL: WHY KNOWLEDGE OF IRON METABOLISM IN HEALTHY CHILDREN AND ADOLESCENTS IS IMPORTANT INTERNATIONALLY</b>	
<i>Ergashbaeva D.A., Akhmadeeva E.N., Akhmadeeva L.R.</i> .....	28
<b>ACADEMIC AND SOCIAL ADAPTATION OF FOREIGN STUDENTS IN HIGHER EDUCATION INSTITUTIONS OF THE KYRGYZ REPUBLIC</b>	
<i>Ermekova D.U., Muratalieva A.D., Sabirova T.S.</i> .....	30

<b>APPROACHES TO INTERNATIONALIZATION OF MEDICAL EDUCATION IN THE PROCESS OF TEACHING THE SPECIALTY "PEDIATRICS" TO FOREIGN STUDENTS</b>	
<i>Etkina E.I., Babenkova L.I., Sakaeva G.D. ....</i>	33
<b>MODERN ASPECTS OF TEACHING THERAPEUTIC DENTISTRY IN THE LANGUAGE OF THE INTERMEDIARY</b>	
<i>Farkhshatova R.R., Gerasimova L.P., Khaibullina R.R., Tukhvatullina D.N., Usmanova I.N. ....</i>	36
<b>ON THE ROLE OF SCIENCE POPULARIZATION IN THE EXPORT OF EDUCATIONAL SERVICES</b>	
<i>Farkhutdinova L.M., Farkhutdinov A.M., Ismagilov R.A. ....</i>	39
<b>DISADVANTAGES AND ADVANTAGES OF DISTANCE LEARNING</b>	
<i>Fazlutdinova L.R., Gainullin R.A., Yulmukhametov A.A. ....</i>	41
<b>APPLICATION OF DIGITAL TECHNOLOGIES WHEN TEACHING CHEMISTRY TO FOREIGN STUDENTS</b>	
<i>Gabbasova I.M., Shumadalova A.V., Shamsutdinova S.R., Korolev V.V., Meshcheryakova S.A. ....</i>	43
<b>PHYSICAL ACTIVITY AS AN IMPORTANT COMPONENT IN THE SYSTEM OF PHYSICAL TRAINING OF BSMU STUDENTS</b>	
<i>Gainullin R.A., Vakilov F.F. ....</i>	45
<b>EDUCATIONAL ADAPTATION OF STUDENTS FROM FOREIGN COUNTRIES WHEN STUDYING IN THE SPECIALTY OF DENTISTRY</b>	
<i>Gerasimova L.P., Usmanova I.N., Farshatov R.S., Khaibullina R.R., Farkhshatova R.R. ....</i>	47
<b>PECULIARITIES TO ORGANIZATION OF EDUCATIONAL AT THE DEPARTMENT OF TOPOGRAPHIC ANATOMY AND OPERATIVE SURGERY IN THE ERA OF INTERNATIONALIZATION</b>	
<i>Gibadullina F.B., Adiev R.F., Deffo T.R., Nasibullin I.M., Sheikh Massoud M. Ch. ....</i>	49
<b>MOTOR ACTIVITY IS THE BASIS OF A HEALTHY LIFESTYLE OF MEDICAL UNIVERSITY STUDENTS</b>	
<i>Gilmutdinova L.T., Faizova E.R., Nazarova E.M., Karpova E.S., Iseeva D.R., Gilmutdinov B.R., Ivanchenko G.V. ....</i>	51
<b>INFLUENCE OF PHYSICAL ACTIVITY ON THE MENTAL STATE OF FOREIGN FIRST-YEAR STUDENTS OF BSMU</b>	
<i>Gumerov I.I., Khadiyatov R.Z., Tonkachev A.S. ....</i>	55
<b>FEATURES OF USING INTERNET RESOURCES IN TEACHING RUSSIAN AS A FOREIGN LANGUAGE</b>	
<i>Gumerova A.M., Kudryavtseva Z.G., Chusova K.V. ....</i>	57
<b>COLLOBATION FORMS OF LEARNING</b>	
<i>Ibragimov D.R., Aitova L.R., Timerbulatov M.V. ....</i>	59
<b>COMBINATION OF CLASSICAL AND INNOVATIVE METHODS IN TEACHING HISTOLOGY TO FOREIGN STUDENTS AT THE BASHKIR STATE MEDICAL UNIVERSITY</b>	
<i>Imaeva A.K., Fazlyakhmetova M.Ya., Khasanova I.R., Kabaeva M.M. ....</i>	63
<b>THE COMMON PROBLEM OF INTERNATIONAL STUDENTS AND ITS SOLUTION AND UNEXPECTED CHALLENGES OF WORKING WITH FOREIGN TEACHER</b>	
<i>Imran Aslam Dr., Yuldashev S. J. ....</i>	66

<b>FEATURES OF TEACHING THE DISCIPLINE INTERNAL DISEASES IN FOREIGN STUDENTS OF THE FACULTY OF DENTISTRY IN ENGLISH</b>	
<i>Ishmukhametova A.N.</i> .....	70
<b>ASSESSMENT OF FACTOR "PHYSICAL ACTIVITY" AMONG MEDICAL STUDENTS FROM INDIA</b>	
<i>Iskhakov E.R., Nurgalina E.M., Gaysina A.F., Bogdanova A.V.</i> .....	72
<b>FEATURES OF TEACHING BIOLOGY TO FOREIGN STUDENTS OF A MEDICAL UNIVERSITY</b>	
<i>Iskhakova G.M.</i> .....	74
<b>MODERN ASSESSMENT OF THE HIPPOCRATIC OATH AND MEDICAL ETHICS IN THE ASPECT OF THE INTERNATIONALIZATION OF MEDICAL EDUCATION</b>	
<i>Ivanova O.M., Madjidova Y.N., Akhmadeeva L.R., Bogovazova L.R.</i> .....	75
<b>EXPERIENCE OF TEACHING FOREIGN STUDENTS AT WEST KAZAKHSTAN MARAT OSPANOV MEDICAL UNIVERSITY</b>	
<i>Karimsakova B.K., Kuzdenbayeva G.E., Akhmadeeva L.R.</i> .....	77
<b>BIOCHEMISTRY OLYMPIAD FOR FOREIGN STUDENTS AS A FACTOR OF IMPROVING THE QUALITY OF EDUCATION</b>	
<i>Karyagina N.T., Abdullina G.M., Galimov Sh.N.</i> .....	79
<b>REALIZATION OF COMPETENCES AT THE PRESENT STAGE OF TEACHING NORMAL PHYSIOLOGY TO FOREIGN STUDENTS</b>	
<i>Kayumova A.F., Kiseleva O.S., Ziyakaeva K.R., Gabdulkhakova I.R.</i> .....	82
<b>METHODOLOGY OF PHYSICAL EDUCATION FOREIGN STUDENTS TO DEVELOP THEIR READINESS TO COMPLY WITH NORMS OF ALL-RUSSIAN PHYSICAL CULTURE AND SPORT COMPLEX "READY FOR LABOUR AND DEFENSE" (RLD)</b>	
<i>Khadiyatov R.Z., Zakiev A.M., Gumerov I.I., Tonkachev A.S.</i> .....	86
<b>POSSIBILITIES OF THE WINTER EDUCATIONAL SCHOOL IN THE DEVELOPMENT OF SELF-DETERMINATION OF THE PROFESSIONAL ACTIVITY OF CITIZENS AND TO INCREASE INTEREST IN SCIENTIFIC ACTIVITY FOREIGN STUDENTS</b>	
<i>Khalikova L.R., Nasibullina A.Kh.</i> .....	87
<b>ORGANIZATION OF TRAINING OF FOREIGN STUDENTS IN A MEDICAL UNIVERSITY AT THE DEPARTMENT OF PFYSICAL CULTURE</b>	
<i>Khalilov A.M.</i> .....	90
<b>OUR EXPERIENCE OF WORKING WITH AN INTERNATIONAL STUDENT SCIENTIFIC CIRCLE IN THE PREPARATION AND CONDUCT OF SURGERY OLYMPIADS, MASTER CLASSES AT THE DEPARTMENT OF TOPOGRAPHIC ANATOMY AND OPERATIVE SURGERY</b>	
<i>Khidiyatov I.I., Abdullin U.M., Aria N., R., Deffo T.R.</i> .....	92
<b>FOREIGN STUDENTS AT RUSSIAN HIGHER EDUCATION INSTITUTIONS</b>	
<i>Khisamov E.N., Enikeev D.A., Farshatova E.R., Srubilin D.V., Fayurshin A.Z.</i> .....	96
<b>INTERNATIONALIZATION OF EDUCATIONAL INSTITUTIONS IN RUSSIA</b>	
<i>Khisamov E.N., Enikeev D.A., Farshatova E.R., Srubilin D.V., Fayurshin A.Z.</i> .....	98



<b>INDEPENDENT WORK WHEN STUDYING PHARMACOLOGY AT THE DENTAL FACULTY BY FOREIGN STUDENTS</b>	
<i>Kitapova R.R., Samorodov A.V., Bogdanova Y.A., Afanasyeva Y.G., Startseva L.V. ....</i>	99
<b>EXTRACURRICULAR AND CREATIVE ACTIVITIES OF STUDENTS IN THE FRAMEWORK OF THE EDUCATIONAL PROCESS</b>	
<i>Klyavlin S.V., Klyavlina M.Yu., Huramshina A.R., Rybalko D.Yu., Borzilova O.Kh. ....</i>	102
<b>INTEGRATION OF DIGITAL TECHNOLOGIES IN FOREIGN LANGUAGE CLASSES</b>	
<i>Kovalenk Y.I., Kudryavceva Z.G. ....</i>	104
<b>FEATURES OF TEACHING THE VARIANT PART "FUNDAMENTALS OF MEDICINAL PLANT GROWING" AT THE DEPARTMENT OF PHARMACOGNOSY TO STUDENTS IN THE INTERMEDIATE LANGUAGE</b>	
<i>Kudashkina N.V., Khasanova S.R., Galiakhmetova E.Kh., Shakirova R.R., Nizamova A.A. ....</i>	107
<b>DISTANCE EDUCATION FOR RESIDENTS IN THE COVID-19 ERA</b>	
<i>Lutfarakhmanov I.I., Kakaulin A.G., Gafarova A.M., Lifanova A.D., Grazhdankin A.A. ....</i>	108
<b>EXPERIENCE IN DEVELOPING OF CREATIVE ABILITIES OF INTERNATIONAL MEDICAL STUDENTS</b>	
<i>Makusheva N.V., Chuikin S.V., Aflakhanova G.R. ....</i>	112
<b>TEACHING THERMAL TRAUMA TREATMENT</b>	
<i>Mavlyutov T.R., Minasov B.Sh., Minasov T.B., Yakupov R.R., Valiev M.A. ....</i>	114
<b>INTERNATIONALIZATION OF MEDICAL EDUCATION</b>	
<i>Melnikova A.Y., Ryabceva N.D., Fazliakhmetova M.Ya., Khusayenova A.A. ....</i>	117
<b>POSSIBILITIES AND PROSPECTS OF TEACHING TRAUMATOLOGY AND ORTHOPEDICS TO FOREIGN STUDENTS OF A MEDICAL UNIVERSITY</b>	
<i>Minasov B.Sh., Mavlyutov T.R., Nigamedzyanov I.E., Minasov T.B., Valiev M.A. ....</i>	118
<b>USING THE MICROSOFT TEAMS PLATFORM FOR THE EDUCATIONAL PROCESS AT A MEDICAL UNIVERSITY IN THE CONTEXT OF THE SPREAD OF A NEW CORONAVIRUS INFECTION</b>	
<i>Mirsayeva G.H., Galieva G.A., Mavzyutova G.A., Amirova G.F., Kamaeva E.R. ....</i>	121
<b>PRACTICE-ORIENTED MASTERING OF THE DISCIPLINE BY FOREIGN STUDENTS</b>	
<i>Mukhametzyanov A.M., Asylgareeva G.M., Kaidanek T.V., Rakhmatullina E.I., Enikeev E.A., Sharipova D.N. ....</i>	124
<b>MUSICAL EDUCATION AND COGNITIVE FUNCTION IN INTERNATIONAL ACADEMIC SOCIETY: HOW TO USE IT FOR TEACHING MEDICINE</b>	
<i>Mukhsinov M.M., Akhrorova Sh.B., Akhmadeeva L.R. ....</i>	126
<b>FEATURES OF TEACHING DISCIPLINE "INFECTIOUS DISEASES" TO FOREIGN STUDENTS</b>	
<i>Murzagaleeva L.V., Valishin D.A., Burganova A.N., Latipova G.R., Abrashina N.A. ....</i>	129

<b>FEATURES OF TEACHING THE DISCIPLINE "INCLUSIVE COMPETENCE" AT THE DENTAL FACULTY</b>	
<i>Murzagalina L.V., Gafarova G.M. ....</i>	133
<b>MODERN TECHNOLOGIES IN PROFESSIONAL MEDICAL EDUCATION</b>	
<i>Mutalova E.G., Kamaltdinova G.J., Galyautdinova V.R., Frid S.A., Asadullina G.V., Rustyamova Z.Y., Nigmatullina A.E., Samigullina L.I., Sadikova R.I., Musina F.S. ....</i>	135
<b>METHODS OF TEACHING FOREIGN STUDENTS AT THE DEPARTMENT OF TOPOGRAPHIC ANATOMY AND OPERATIVE SURGERY</b>	
<i>Nasibullin I.M., Adiev R.F., Sunagatullina E.H., Valiev T.I. ....</i>	137
<b>EXPERIENCE OF SOCIO-CULTURAL INTEGRATION OF FOREIGN STUDENTS IN CONDITIONS OF THE REPUBLIC OF BACHKORTOSTAN</b>	
<i>Nigmatullin R.T., Rybalko D.Yu., Vagapova V.Sh., Borzilova O.Kh., Imanova V.R. ....</i>	138
<b>PROBLEMS OF TEACHING FOREIGN STUDENTS IN PHYSICAL EDUCATION CLASSES</b>	
<i>Odinikova Yu.A., Bartdinova G.A., Suleymanova Z.G., Fazlutdinova L.R. ....</i>	142
<b>WORKING OUT THE SKILLS OF CHOOSING MEDICINES WHEN RELIEVING EMERGENCY CONDITIONS ON THE EXAMPLE OF A STUDENT CONFERENCE</b>	
<i>Okladnikova E.V., Veselova O.F. ....</i>	143
<b>TRADITIONAL AND MODERN METHODS OF TEACHING HUMAN ANATOMY IN GROUPS OF FOREIGN STUDENTS</b>	
<i>Pochueva N.N., Nigmatullin R.T., Borzilova O.Kh., Maslennikov A.V., Minigazimov R.S. ....</i>	145
<b>SOCIOCULTURAL COMPONENT IN TEACHING RUSSIAN AS FOREIGN IN THE MEDICAL UNIVERSITY</b>	
<i>Saitova K.A. ....</i>	148
<b>ELECTRONIC EDUCATIONAL TECHNOLOGIES IN THE COURSE OF TRAINING OF FOREIGN STUDENTS FOR DISCIPLINE "OBSTETRICS AND GYNECOLOGY"</b>	
<i>Sakhautdinova I.V., Zulkarneeva E.M., Galimov A.I., Kuleshova T.P., Ziganshina L.Z. ....</i>	150
<b>ISSUES OF ADAPTATION OF FOREIGN STUDENTS IN THE BASHKIR STATE MEDICAL UNIVERSITY</b>	
<i>Shamsutdinova S.R., Meshcheryakova S.A., Pupykina K.A., Gabbasova I.M., Shumadalova A.V. ....</i>	152
<b>FEATURES OF TEACHING PHYSICAL CULTURE AND SPORT FOR FOREIGN STUDENTS</b>	
<i>Suleimanova Z.G., Bartdinova G.A., Fazlutdinova L.R., Odinokova Yu.A. ....</i>	155
<b>SIMULATION TRAINING AS PRACTICALLY-ORIENTED TECHNOLOGY IN PROFESSIONAL STUDY OF STUDENTS</b>	
<i>Tayupova I.M., Muslimova S.Y., Khamadyanova A.U., Utyasheva R.A., Girfanova I.T. ....</i>	157
<b>THE ADULT LEARNING THEORY PRINCIPLES</b>	
<i>Tselousova O.S., Ovsyannikova L.B. ....</i>	160

<b>ELECTRONIC EDUCATIONAL ENVIRONMENT OF MEDICAL UNIVERSITY AS A CONDITION FOR THE EFFECTIVENESS OF THE INTERNATIONALIZATION OF THE EDUCATIONAL PROCESS AND IMPROVING THE QUALITY OF EDUCATION</b>	
<i>Tsyglin A.A.</i> .....	161
<b>INNOVATIVE TECHNOLOGIES IN ACQUISITION AND PRACTICING PRACTICAL SKILLS OF THE DISCIPLINE THERAPEUTIC DENTISTRY BY STUDENTS FROM FOREIGN COUNTRIES</b>	
<i>Usmanova I.N., Gerasimova L.P., Kuznetsova L.I., Gumerova M.I., Sitdikova Z.F.</i> .....	163
<b>IMPLEMENTATION OF THE PRACTICAL SECTION OF THE ACADEMIC DISCIPLINE ENDODONTICS IN THE PREPARATION OF STUDENTS FROM FOREIGN COUNTRIES AT THE DEPARTMENT OF THERAPEUTIC DENTISTRY</b>	
<i>Usmanova I.N., Kuznetsova L.I., Astakhova M.I., Gumerova M.I., Tukhvatullina D.N.</i> .....	166
<b>INTERNSHIP OF FOREIGN STUDENTS</b>	
<i>Valiulina A.Ya., Titova T.N., Markova Ju.A., Titova A.A., Amirova V.R.</i> .....	170
<b>FUNDAMENTALS OF MOLECULAR GENETICS IN STUDYING THE COURSE OF BIOLOGY TO FOREIGN STUDENTS</b>	
<i>Viktorova T.V., Sayranova E.I.</i> .....	172
<b>FORMING STUDENTS' INDEPENDENT WORK SKILLS USING AN INTERMEDIATE LANGUAGE FOR THE DISCIPLINE PHARMACOLOGY</b>	
<i>Yafizova R.A., Kireeva R.M., Samorodov A.V., Afanaseva Yu.G., Startseva L.V.</i> .....	173
<b>MODERN METHODS OF INCREASING THE COGNITIVE ACTIVITY OF FOREIGN STUDENTS OF THE PEDIATRIC FACULTY OF A MEDICAL UNIVERSITY</b>	
<i>Yakovleva L.V., Tikhonova R.Z., Kuchina E.S.</i> .....	176
<b>DIGITAL TOOLS IN LEARNING STUDENTS OF PEDIATRIC FACULTY</b>	
<i>Yakovleva L.V., Kuchina E.S., Tikhonova R.Z.</i> .....	178
<b>IT-TECHNOLOGIES AS A WAY TO TEACH PHYSICAL EDUCATION AND SPORT TO FOREIGN STUDENTS UNDER PANDEMIC CONDITIONS AT BSMU</b>	
<i>Zakiev A.M., Khadiyatov R.Z.</i> .....	181
<b>FEATURES OF TEACHING PROPADEUTICS OF INTERNAL DISEASES FOR FOREIGN STUDENTS IN THE INTERMEDIATE LANGUAGE</b>	
<i>Zulkarneev R.H., Zagidullin N.Sh., Aznabaeva Yu.G., Gareeva D.F.</i> .....	183

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