Журнал «Перспективи та інновації науки»
(Серія «Педагогіка», Серія «Психологія», Серія «Медицина»)
№7(12) 2022

СЕРІЯ «Медицина»

УДК 378.147.091.313:378.6:61

https://doi.org/10.52058/2786-4952-2022-7(12)-649-656

Shiyan Denys Mykolayovych Doctor of Medical science, professor, rector, Kharkiv International Medical University, Molochna St., 38, Kharkiv 61001, https://orcid.org/0000-0002-3755-7051

Tsodicova Olha Anatoliyivna Doctor of Medical science, professor, head of the department of professionally-oriented disciplines, Kharkiv International Medical University, Molochna St., 38, Kharkiv 61001, https://orcid.org/0000-0001-9333-7048

Davydova Zhanna Vadymivna Candidate of Pedagogical Science, associate professor, vice-rector, Kharkiv International Medical University, ETH Zurich postdoc researcher, Molochna St., 38, Kharkiv 61001, https://orcid.org/0000-0002-7514-8910

Gyrya Maryna Pavlivna Candidate of Technical Science, head of the department of education quality, Kharkiv International Medical University, Molochna St., 38, Kharkiv 61001, https://orcid.org/0000-0002-6737-9604

Zherebkin Vadym Vasyl′ovych Candidate of Medical Science, associate professor, associate professor of the department of professionally-oriented disciplines, Molochna St., 38, Kharkiv 61001, https://orcid.org/0000-0001-7025-9462

EXPERIENCE IN INTRODUCING INTERDISCIPLINARY PEDAGOGICAL INTEGRATION IN INTERNATIONAL MEDICAL UNIVERSITY

Abstract. The article describes the experience of implementing a scientific and educational project in a private institution of higher education “Kharkiv International Medical University”, which provides on a monthly basis one-day thematic interdisciplinary seminars for students of all courses, as a quality tool that achieves a balance of educational and professional programs in the specialty “Medicine” through interdisciplinary pedagogical interaction. The concept of interdisciplinary integration is considered. The role of interdisciplinary approach in medical education is determined. Experience of introducing interdisciplinary approach in medical training is described by describing the events in the university: World Anatomy Day, scientific and practical seminar “A modern view of the problem of pneumonia during

the period of epidemic trouble associated with the spread of coronavirus infection", International AIDS day, International Cancer day. It is noted that such events at the university are aimed at increasing the motivation of students for social and academic integration, encourage the development of cognitive skills, contribute to a deeper study of disciplines and the development of critical and clinical thinking skills. Students also learn to analyze problems, highlight important information and gain invaluable experience close to a real life situation. Introducing a new scientific and educational project into the educational process at the University on the basis of interdisciplinary interaction of scientific and pedagogical staff, scientists and clinical practitioners, PIHE "KhIMU" not only directs its activities towards the constant fulfillment of the requirements of domestic, international standards of education and educational professional program in the specialty "Medicine", and also lays down the basic principles of the university's reputational capital and culture of quality for the future.

Keywords: higher education, interdisciplinary integration, educational process, educational and professional program, medical training, information competence.

Шиян Денис Миколайович доктор медичних наук, професор, ректор, Харківський міжнародний медичний університет, вул. Молочна, 38, Харків 61001, https://orcid.org/0000-0002-3755-7051

Цодікова Ольга Анатоліївна доктор медичних наук, професор, завідувач кафедри професійно-орієнтованих дисциплін, Харківський міжнародний медичний університет, вул. Молочна, 38, Харків 61001, https://orcid.org/0000-0001-9333-7048

Давидова Жанна Вадимівна кандидат педагогічних наук, доцент, проректор Харківського міжнародного медичного університету, науковий співробітник ETH Zurich, вул. Молочна, 38, Харків 61001, https://orcid.org/0000-0002-8101

Гиря Марина Павлівна кандидат технічних наук, завідувач кафедри якості освіти, Харківський міжнародний медичний університет, вул. Молочна, 38, Харків 61001, https://orcid.org/0000-0002-6737-9604

Жеребкін Вадим Васильович кандидат медичних наук, доцент, доцент кафедри професійно-орієнтованих дисциплін, вул. Молочна, 38, Харків 61001, https://orcid.org/0000-0001-7025-9462

ДОСВІД ЗАПРОВАДЖЕННЯ МІЖДИСЦИПЛІНАРНОЇ ПЕДАГОГІЧНОЇ ІНТЕГРАЦІЇ У МІЖНАРОДНОМУ МЕДИЧНОМУ УНІВЕРСИТЕТІ

Анотація. У статті розглянуто досвід реалізації науково-освітнього проекту у приватному вищому навчальному закладі «Харківський міжнародний

медичний університет», який щомісяця передбачає проведення одноденних тематичних міждисциплінарних семінарів для студентів усіх курсів, як якісного інструменту досягнення збалансованості освітньо-професійних програм за фахом «Медицина» через міждисциплінарну педагогічну взаємодію. Розглянуто концепцію міждисциплінарної інтеграції. Визначено роль міждисциплінарного підходу в медичній освіті. Досвід впровадження міждисциплінарного підходу в медичній освіті охарактеризовано описом подій в університеті: Всесвітнього дня анатомії, науково-практичного семінару «Сучасний погляд на проблему пневмонії в період епідемічної негаразди, пов'язаної з поширенням коронавірусної інфекції», Міжнародний день боротьби зі СНІДом, Міжнародний день боротьби з раком. Зазначається, що такі заходи в університеті спрямовані на підвищення мотивації студентів до соціальної та академічної інтеграції, стимулюють розвиток когнітивних навичок, сприяють глибшому вивченню дисциплін та розвитку навичок критичного та клінічного мислення. Студенти також вчаться аналізувати проблеми, виділяти важливу інформацію та отримувати безцінний досвід, близький до реальної життєвої ситуації. Впроваджуючи в навчальний процес університету новий науково-освітній проект на основі міждисциплінарної взаємодії науково-педагогічних працівників, науковців та клінічних лікарів, ПВНЗ «ХММУ» не лише спрямовує свою діяльність на постійне виконання вимог вітчизняних, міжнародних стандартів освіти та освітньої професійної програми за спеціальністю «Медицина», а також закладає основні принципи репутаційного капіталу університету та культури якості на майбутнє.

Ключові слова: вища освіта, міждисциплінарна інтеграція, навчальний процес, освітньо-професійна програма, медична підготовка, інформаційна компетентність

Formulation of the problem. International, national and regional assessments of learning outcomes today testify to the low quality of education in many countries of the world. (Master's) Level. At the moment, most medical universities are striving to train highly qualified professionals who can apply the acquired knowledge in solving specific practical problems, and who are also able to make decisions in non-standard situations, who have the skills of practical activity and research work [1, 2, 7].

Fulfilling the tasks set in the field of reform of higher medical education and reform in the field of healthcare, medical universities in educational and professional programs adhere to the vector of student-centeredness, individually-oriented organization of the educational process, for which they use the latest forms of education, introduce high technologies into scientific, pedagogical and clinical activities. The available literature presents a wide variety of approaches and methods that, based on a dynamic combination of knowledge, skills, ways of thinking, attitudes, and values, are aimed at the formation of general educational and

professional competencies, which ultimately provide a student-centered approach to learning and high rating characteristics. students.

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Among the variety of approaches that allow intensifying the formation of general cultural and professional competencies in a student, an important role belongs to interdisciplinary pedagogical interaction, since the role of knowledge, skills, and clinical thinking in areas adjacent to the main specialty is currently increasing. It has already been proven that an interdisciplinary approach, the methodological unity of training courses and disciplines contributes to improving the quality of education, and the latest achievements of modern science, professional information flows allow the student to successfully master competencies.

Analysis of the latest research. The problem of implementing an interdisciplinary approach in medical education is studied by Michael J. Dowling, David D. Allen, Mark A.Penn, Lois Margaret Nora, N.Gumenna, A. Shulhay, L.Fedonyuk, A.Mudra, O.Oleshuk etc.

Purpose of the article. To analyze the role of interdisciplinary approach in medical education and to share the experience of integrating it in the educational process of a medical school.

Presentation of the main material of the study. An interdisciplinary approach to teaching in a modern medical school is presented from three angles in accordance with the concept of UNESCO as a set of concepts of interdisciplinary (interdisciplinary), multidisciplinary (multidisciplinary) and transdisciplinary (transdisciplinary) approaches. Often the terms “multidisciplinary” and “interdisciplinary” are used interchangeably to describe the purpose of crossing boundaries between disciplines [6].

According to a report by the Amsterdam Institute for Interdisciplinary Studies [4], the ability to integrate knowledge and ways of thinking in two or more academic disciplines or fields of knowledge allows for cognitive progress that is impossible or unlikely to be achieved with uniform disciplinary means. The possibility of independent communication between different disciplinary areas reliably helps students to better remember and interpret relevant knowledge and use it in practice. And an important conclusion was drawn: teachers should develop special technologies for interdisciplinary classes and contexts in order to help students

overcome the barriers of disciplinary egocentrism. And the sooner an educational model is built according to this principle, the more successful interdisciplinary education will be, and throughout life and work.

An interdisciplinary approach is a way of expanding the scientific worldview in the direction of enriching the knowledge, methodology and language of one scientific discipline at the expense of the knowledge, methodology and language of another scientific discipline. If we consider the specifics of medical education, which by its nature is based on interdisciplinary connections between different scientific disciplines (humanitarian, fundamental and clinical), as well as connections between clinical departments and the place of practical implementation of professional knowledge (clinical bases, phantom, simulation classes), then there is a need to include in the educational process serious educational and methodological tasks that cannot be solved without interdisciplinary integration. It is in the conditions of interdisciplinary pedagogical interaction that “the final product is always better when it is obtained due to the diversity of thoughts and approaches of the subjects of activity” [5]. This is especially valuable in view of the education of foreign students in medical universities, whose studies in medical universities of Ukraine contribute to the integration of domestic medical schools in to the global intellectual space and, therefore, stimulate the development of medical science and practice in the country.

In turn, disciplinary areas of knowledge have a certain isolation, which does not always allow a future specialist to form a complete picture of the profession. The possibilities of the university teachers themselves are also limited, since only a few of them have deep knowledge in several disciplines and fields of knowledge at once. The problem of personnel is also the fact that teachers of fundamental and humanitarian disciplines, as a rule, do not have a medical education, and “teachers of clinical disciplines, who do not have a special pedagogical education, often have a poor command of teaching methods” [7].

Due to the current problems with clinical sites, interdisciplinary interaction is also complicated; mastering practical skills at the bedside due to the absence of "thematic" patients or their refusal to participate in the examination is replaced by "simulation" or "virtual" patients. It should also be noted that the teachers themselves are very busy in the framework of the compulsory curricula, which also significantly cuts off inter-departmental cooperation and inter-subject communications.

From this point of view, the general policy, strategy and procedures for ensuring the quality of educational activities at PIHE "KhIMU" are aimed at performing a number of tasks, activities and procedures, as well as monitoring and analyzing the results of activities at all levels of the organizational structure of the university to ensure the qualitative acquisition of knowledge, skills and other competencies in accordance with the standards of higher education. Thus, undergraduate education, which takes place according to the principle of subject-block education, dictates the need to obtain highly specialized knowledge,

which can only be implemented through joint project activities of departments (of different disciplines and areas).

As an example of the establishment of interdisciplinary pedagogical interaction, one can cite the scientific and educational project developed and implemented in the educational process of the PIHE "KhIMU", which provides for monthly one-day thematic interdisciplinary conferences and seminars for students of all courses (for foreign and domestic students).

The first experience was the International Day of Anatomy, which turned into an annual interdisciplinary conference that brought together scientists, clinicians, researchers of different ages from different cities and countries and showed the fruitful interaction of experienced scientists, young scientists and students aimed at solving urgent problems in the field of medicine. In the frameworks of International Day of Anatomy a number of events were held: a conference with students and researchers participation, thematic master-classes, projects presentations, thematic quest, quiz "What? Where? When?". For participation in the conference students were preparing presentations under lecturers' supervision. Topics of the presentations were covering major fundamental disciplines that students study. But the research that was provided by them had more thorough and deep study of particular issues. At first students provided theoretical study, gathered empirical data and were processing information obtained.

One of the directions of World Anatomy Day events was presentation of student projects. An exhibition of Anatomy drawings was organized, at which the best selected drawings were presented. Also the students presented hand-made anatomical models of improvised materials that demonstrate structure and mechanisms of human body organs operation. Such an activity of designing visual anatomical projects gives an opportunity for students not only theoretically master anatomical knowledge, but creative approach to visual presentation influences better recall, understanding and transfer and interiorization of knowledge through exteriorization. The second example of interiorization of knowledge through exteriorization was Histology master-class during which students molded human tissue samples from plasticine.

In support of the initiative of the Global Coalition against Pneumonia, an interdisciplinary scientific and practical seminar "A modern view of the problem of pneumonia during the period of epidemic trouble associated with the spread of coronavirus infection" was held on an ongoing basis. As part of the seminar, lecturers, who are clinicians of the first and highest category, held master classes, where they demonstrated modern views on the problem of pneumonia from the standpoint of internal medicine, pediatrics, radiation diagnostics, and pulmonology. Students had the opportunity to communicate with lecturers, ask questions, receive up-to-date information from the standpoint of evidence-based medicine, which no textbook can give. On the results of the seminar the Kahoot-quiz among the students was organized. The results of the quiz demonstrated rather high level of knowledge recall, understanding and transfer.

On the International AIDS Day, the speakers of the annual interdisciplinary scientific and practical seminar “Let’s stop AIDS Together” were lecturers of KhIMU, as leading specialists in the field of internal medicine, pediatrics, anesthesiology, pathomorphology. This event was aimed not only at the implementation of the educational component of the work programs, but also at informing the audience about the danger of the disease, ways of its spread, symptoms, and treatment features. Within the frameworks of the events devoted to the International AIDS Day the students prepared posters on AIDS prevention and were spreading them among the population.

On World Cancer Day KhIMU initiated the annual interdisciplinary scientific and practical seminar “Current problems of prevention and early diagnosis of oncological diseases”, where specialists from various specialties demonstrated modern views on the problem of combating malignant tumors. The speakers of the seminar are lecturers of various clinical disciplines, who are leading specialists in the field of internal medicine, pediatrics, radiation diagnostics, and urology. On the results of the scientific and practical seminar the round table on discussing current issues of oncological diseases prevention and treatment among students and lecturers was organized and case-study technology was implemented for practical transfer of skills obtained on the base of evidence-based medicine and clinical reasoning.

Such events at the university are aimed at increasing the motivation of students for social and academic integration, encourage the development of cognitive skills, contribute to a deeper study of disciplines and the development of critical and clinical thinking skills. And students also learn to analyze problems, highlight important information and gain invaluable experience close to a real life situation. In addition, all seminars held are based on a modern approach to medical practice using reliable materials. Taking into account the volumes of compulsory educational components of various profiles and disciplines, a balance of the educational program is achieved - the conformity of the structure and content of its mandatory components with the program learning outcomes and the components of the Unified State Qualification Examination, which is taken by medical students during their studies in several stages [2].

Conclusions. Thus, introducing a new scientific and educational project into the educational process at the University on the basis of interdisciplinary interaction of scientific and pedagogical staff, scientists and clinical practitioners, PIHE "KhIMU" not only directs its activities towards the constant fulfillment of the requirements of domestic, international standards of education and educational professional program in the specialty "Medicine", and also lays down the basic principles of the university's reputational capital and culture of quality for the future.

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