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### INTEGRATED CLINICAL SYMPOSIUM TEACHING METHOD IN THERAPY

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#### Summary

**Introduction.** The training of highly qualified competitive specialists, by integrating the best world practice in education, science and the clinic, is an essential component of our university's strategy.

Aim: To improve the competencies of students, based on the relationship between basic and clinical sciences, to achieve the final learning outcomes.

**Materials and methods:** The implementation experience at the department of faculty therapy of an integrated clinical symposium (ICS), built on the principles of interdisciplinary integration with the involvement of specialists from related departments in solving a single clinical situation. An algorithm for conducting ICS is presented.

The results of the feedback analysis conducted among students showed that almost 100% noted that this technology of integration into the study of internal diseases helped to develop: knowledge and understanding in the studied field, research skills, critical and clinical thinking, 90% answered that this improves communication and teamwork skills.

**Conclusions:** Integration of educational programs, an integrated approach to the study of basic and clinical disciplines is currently a necessary condition for the development of medical education and the effective formation of the basic competencies of graduates of medical schools.

Key words: medical education, symposium, integration, competence.

#### Резюме

# ИНТЕГРИРОВАННЫЙ КЛИНИЧЕСКИЙ СИМПОЗИУМ - МЕТОД ОБУЧЕНИЯ В ТЕРАПИИ

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**Введение.** Подготовка высококвалифицированных конкурентоспособных специалистов, путем интеграции наилучшей мировой практики образования, науки и клиники является важнейшей составной частью стратегии нашего университета.

**Цель:** Улучшить компетенции обучающихся, на основе взаимосвязи между фундаментальными и клиническими науками, для достижения конечных результатов обучения.

**Материалы и методы.** Опыт внедрения на кафедре факультетской терапии интегрированного клинического симпозиума (ИКС), построенный на принципах междисциплинарной интеграции с привлечением специалистов смежных кафедр в решении единой клинической ситуации. Представлен алгоритм проведения ИКС.

**Результаты** анализа обратной связи, проведенной среди студентов, показал, что практически 100% отметили, что данная технология интеграции в изучение внутренних болезней помогла развить: знания и понимание в изучаемой области, навыки научных исследований, критическое и клиническое мышление, 90% ответили, что при этом улучшаются коммуникативные навыки и навыки работы в команде.

**Выводы:** интеграция образовательных программ, интегрированный подход к изучению базовых и клинических дисциплин в настоящее время является необходимым условием развития медицинского образования и эффективного формирования основных компетентностей выпускников медицинских вузов.

Ключевые слова: медицинское образование, симпозиум, интеграция, компетенция.

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#### Түйіндеме

## ИНТЕГРИРЛЕНГЕН КЛИНИКАЛЫҚ СИМПОЗИУМ - ӘДІСІМЕН ТЕРАПИЯНЫ ОҚЫТУ

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**Енгізу.** Білім берудің, ғылымның және клиниканың ең үздік әлемдік тәжірибесін біріктіру арқылы жоғары білікті бәсекеге қабілетті мамандарды дайындау, біздің университет стратегиясының маңызды құрамдас бөлігі болып табылады.

**Мақсаты:** Оқытудың соңғы нәтижелеріне қол жеткізу үшін, фундаменталды және клиникалық ғылымдар арасындағы өзара байланыс негізінде, білім алушылардың компетенциясын жақсарту.

**Материалдар және әдісі.** Факультеттік терапия кафедрасында бір клиникалық жағдайды шешуде, аралас кафедралардың мамандарымен біріге отырып, пәнаралық интеграция принциптерінде құрылған интеграцияланған клиникалық симпозиумды (АКЖ) енгізу тәжірибесі. АКЖ жүргізу алгоритмі ұсынылды.

**Нәтижесі.** Студенттер арасында жүргізілген кері байланысты талдау нәтижелері 100%, ішкі ауруларды оқуда аталған технология: білім мен түсініктерді, ғылыми зерттеулер дағдысын, критикалық және клиникалық ойлауды дамытуға септігін тигізгенін белгіледі, 90% - командада жұмыс істеу нәтижесінде дағдылары мен коммуникативті дағдылар жақсартылатынына жауап берді.

**Тұжырымы**: білім беру бағдарламаларын ықпалдастыру, базалық және клиникалық пәндерді зерттеуде интеграцияланған көзқарас, қазіргі уақытта медициналық білім беруді дамытудың және медициналық жоғары оқу орындары түлектерінің негізгі құзыреттілігін тиімді қалыптастырудың қажетті шарты болып табылады.

Негізгі сөздер: медициналық білім беру, симпозиум, интеграция, компетенция.

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#### Introduction

The state program of the Republic of Kazakhstan "Education 2020" is identified as a priority. In this regard, the system of higher medical education pays great attention to the quality problem. The training of highly qualified competitive specialists, by integrating the best world practice in education, science and the clinic, is an essential component of our university's strategy. The successful solution of this problem depends on the quality of teaching and requires new forms of rational organization of the educational process. [11,8].

Integrated learning is designed to ensure the relationship between basic and clinical sciences, which is very important for students to motivate and interest in the basic biomedical disciplines being studied through the prism of applying the acquired knowledge to solving a specific clinical problem. [7,13]. Integrated training helps to gather facts in a single chain in order to get a complete picture of the clinical situation and develop a holistic approach to the treatment of each individual patient. [2,3,4,5].

**Purpose of the study:** To improve the competencies of students, based on the relationship between basic and clinical sciences, to achieve the final learning outcomes.

#### Methods

There are two traditional approaches to the separation of integration: horizontal and vertical integration. Horizontal integration involves integration between different disciplines within a year or course of study. Horizontal integration is the integration between parallel disciplines, such as: anatomy, physiology, biochemistry or surgery, therapy, pediatrics, which are usually taught at the same stage of the curriculum. In vertical integration, disciplines are taught at various stages or in different years of study. [9,6,12].

The early management of clinical skills and their development with the basic and clinical sciences is a good example of vertical integration. To get the most out of it, you need to combine horizontal and vertical plans to achieve full integration. The horizontal and vertical integration of basic sciences and clinical medicine provides the basis for deep rather than superficial training, and thereby stimulates an indepth understanding of important biomedical principles. Students develop theoretical knowledge that lays the foundation for the further development of clinical skills, namely morphogenesis, pathogenesis of diseases, functioning of the human body systems, their regulation when exposed to the external environment is normal and in

pathological processes, visual diagnostics, principles of the use of drugs. [1,10].

#### Results

The department of "Faculty Therapy" has been successfully working to implement integrated teaching methods, to strengthen the practical orientation of the educational process and self-training in the discipline "Internal Medicine" for 4th year students in the specialty "General Medicine". The staff of the department is constantly improving the forms and methods of stimulating students' creative activity, making corrections to the content of training in accordance with the requirements of practical health care, improving the monitoring and evaluation of the quality of knowledge, practical skills.

The implementation experience at the Department of Integrated Clinical Symposium (ICS) is based on the principles of interdisciplinary integration with the involvement of specialists from related departments in solving a single clinical situation. The student will be able to gather facts in a single chain in order to get a complete picture of the clinical situation and develop a holistic approach to the diagnosis and treatment from the perspective of evidence-based medicine in the context of integrated training in a specific clinical case.

#### Required Documentation:

- Algorithm for the clinical symposium
- Clinical case according to the scheme of the medical history, with questions for discussion and answers. A case should have drawings, tables, diagrams, etc. (improving the understanding of the topic, of good quality); X-ray images, ECG of a subject patient, etc.
  - Tests of input and final control
  - Table for calculating the integrated assessment

#### Integrated Lesson Planning:

It is necessary to plan at the beginning of the school year (semester), taking into account several important factors:

- Conditions (audience quality the number of seats, the availability of office equipment, i.e. material and technical support)
- Increased preparation time for the lesson of the teacher himself
  - Level of previous training of students
- Correspondence in the thematic plan and the intersection of close in content topics of two different disciplines
- ► The topic chosen for the integrated lesson should be meaningful for both disciplines
- To conduct / prepare a symposium for students, you can involve interns, residents of the relevant specialty as mentors, facilitators, consultants

#### Symposium Algorithm:

- Initial level control (testing)
- Alternate presentations of students with prepared short reports (e.g. presenting a case on a thematic patient with the results of a physical examination, epidemiology, pathogenesis, etc.), there should be a lively discussion among students in subgroups, individual answers, speakers can prepare 1- 2 questions to other learners.
- A brief summary of experts with questions after the students' presentations (it is very important that the experts give constructive feedback)

- ► Final control (tests for understanding and application)
- Calculation of the integrated assessment in Excel (with the determination of the specific gravity of all types of assessments per lesson)

On April 18, 2019, an integrated clinical symposium was held at the department of faculty therapy as part of the master class "Modern anticoagulant therapy: from research and recommendations to real clinical practice". In accordance with the technology of conducting, the symposium was held with vertical and horizontal integration. The main stages of the symposium:

- Incoming knowledge control (testing)
- 2. Presentation of a clinical case of a patient with myocardial infarction being treated in the cardiology department of the University Hospital.
- 3. Reports on etiopathogenesis, clinical diagnosis and treatment of patients with myocardial infarction, presented by students of 427 GM groups.
  - 4. Feedback: discussion, discussion
  - 5. Output level control (testing)
  - 6. Conclusion, calculation of the final grade

The experts were the assistant professor of pathophysiology, Ph.D. Urazalina N.M., acting Associate Professor, Department of Faculty Therapy Muzdubaeva J.E., Assistant of the Department of Cardiology and Interventional Therapy PhD Mansurova D.A. Employees of the department, doctors of the cardiac surgery department, cardiologists, doctors of the consultative diagnostic clinic and the functional diagnostics department of the University Hospital attended the discussion.

The results of the feedback analysis conducted among students showed that almost 100% noted that this technology of integration into the study of internal diseases helped to develop

- knowledge and understanding in the field of study,
- research skills
- critical and clinical thinking,
- 90% said that it improves communication and teamwork skills.

An integrated clinical symposium, as a teaching method, helps to increase students' motivation to study clinical disciplines, consolidate their knowledge and improve the competencies of teaching staff of Semey Medical University.

There is a block "Discussion of the results." Does anyone else use these models? If so, their achievements can be briefly described. For comparison. And then the number of words will also increase. And now it's not enough. But if you can't add, then I'll publish it, but it will be very short and small.

**Conclusions:** Thus, the integration of educational programs, an integrated approach to the study of basic and clinical disciplines is currently a necessary condition for the development of medical education and the effective formation of the basic competencies of graduates of medical schools.

**Conflict of interest:** the authors declare no conflict of interest in carrying out this study.

The authors guarantee that there are no plagiarism facts in the article.

Some of the results of this study were published in other publishing houses, but in the present volume with a full description of the results of research and interpretation is proposed for publication for the first time.

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#### Contribution of the authors:

Kaskabaeva A.Sh. - leadership of the research, participation in the analysis and interpretation of the material, writing the article.

Zhumadilova Z.K., Muzdubaeva J.E., Botabaeva A.S. - direct research, collection of material, work with literary sources.

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