

INTERACTIVE EDUCATION METHODS USE DURING INTERNAL MEDICINE TEACHING OF 6-YEAR STUDENTS

N.B. Tymochko

Ivano-Frankivsk National Medical University, Department of Internal Medicine No2 and Nursing, Ivano-Frankivsk, ORCID ID: 0000-0002-5319-5468, e-mail: dr.ntymochko@gmail.com

Absrtact. The aim of the work was to analyze interactive education methods during teaching of internal medicine for 6-year students of the Faculty of Medicine. The 6-year students have already some basic theoretical, as well as practical material. They can make differential diagnostics, diagnoses, set treatment process aim and stages in order to solve patient's problems.

The main part in preparation of a doctor in modern conditions has to correspond to problems of the health care, as well as the society in general. A modern physician must not only be competent in the branch of his/her restricted professional tasks, but also to be aware of diagnostics and treatment, evidence-based medicine basics, to stay tuned in interdisciplinary branches. That's why a modern teacher educating 6-year students in a department of internal medicine accordingly has to know interactive methods of teaching of theoretical material for knowledge acquisition improvement by the students, modern methods of diagnostics, and necessarily to perform lessons in practical training centers for drilling and learning of practical material.

The interactive education method foresees as improvement of teaching of theoretical course with use of modern technologies: problem lectures, master classes, press conferences, as well as practical preparation, where besides traditional approaches there is students' work with patients, improvement of their skills in detecting of clinical symptoms and signs. Alongside these methods, an integral part of the educational process and a guarantee of education quality is students' participation in scientific research work.

Teaching theoretical material on practical lessons is provided by including interactive methods such as imitation business games, different types of discussions, training seminars, and with the help of case methods (an active problem and situation analysis). This is a very significant stage by learning emergency cases, especially by curation of a patient with acute coronary syndrome, acute heart failure, short-term loss of consciousness (syncope), paroxysmal heart rhythm disorders, unconsciousness, and hypertensive crisis.

The quality of medical aid in Ukraine will depend on the quality of medical education. Moreover, since introduction of interactive technologies in education gives an opportunity to students to receive good knowledge, and in the future highly qualified physicians, specialists of different practice, exactly such technologies have to be introduced into the pedagogical process by each teacher of medical universities.

Aim. The training of a physician in modern conditions has to correspond to problems of health care, as well to society at large, upon that a modern physician has to be not only competent in the area of his/her restricted professional tasks, but also to be aware of diagnostics, treatment and basis of evidence-based medicine. Quality of medical education will influence quality of medical aid in Ukraine.

Conclusions. Introduction of interactive education techniques will enable to get a highly qualified medical practitioner in future.

Keywords: interactive methods, internal medicine.

Introduction. Integration of Ukraine into Europe foresees reformation of higher education and entering European educational area. This process requires new approaches to educational process organization in higher educational institutions that was declared by Ukraine in signing of Bologna Declaration [2]. One of courses for comfortable conditions of educational process is implementation of innovative techniques and foremost interactive education methods [6], which are a peculiar system of organization rules for productive cooperation between students and tutors [1].

The aim of the work is to analyze interactive education methods during internal medicine teaching of 6-year medical students.

A concept of *interactive* originates from a word *to interact* (*inter* (between) and *to act*). Interactive educa-

tion is a special organization form of cognitive activity. It includes completely predicted aims. One of the aims lays in development of comfortable study conditions, in which a student feels his progress, his intellectual capacity that makes the educational process productive itself [1]. Interactive education methods can be divided into four main groups [2, 3].

The first group is cooperative learning. Methods of this type of learning are an activity in pairs and small groups, so called pull learning. This form of learning gives an opportunity to bring in students from the whole group in the educational process, during such activity they may make and prove their points of view.

The second group is collective learning (case method, open space technology).

The third group is situational modelling (gaming techniques).

The fourth group is addressing discussion issues. These methods teach students to prove their own opinion, to discuss, stimulate development of critical thinking, and deepen knowledge in a discussed topic.

An interactive education method foresees improvement of educational quality of theoretical course with modern technologies: problem lectures, master classes, press conference lectures [4, 8, 9], as well practical learning, where besides traditional approaches there is students' work with patients, improvement of their skills in identification of clinical symptoms and signs, situational learning technologies (case methods) are widely used [5, 7]. In parallel to these methods, an integral part of educational process and foundation of education quality of specialists is students' participation in academic research work; therefore, students' participation in academic research work is an integral part of educational process, guarantee of educational quality of specialists.

A task to introduce interactive education methods into the educational process emerges in front of teaching staff of the Department of Internal Medicine No 2 and Nursing of SHEI «Ivano-Frankivsk National Medical University» for successful realization of educational program in discipline «Internal Medicine with Infectious Diseases and Physiology». It concerns Module 3, especially Module 1 «Curation of Patients with General Symptoms and Syndromes in Cardiology Clinics» and Module 4 «Emergencies in Internal Medicine».

Learning academic material in practical classes is provided with bringing in interactive techniques: business simulation games, different types of discussions, training workshop, and with the help of case method (active case study). This is a very important stage by learning medical emergencies, especially during curation of a patient with acute coronary syndrome, acute heart failure, short-term consciousness loss (syncope), paroxysmal heart rhythm disorders, faint, and hypertensive crisis.

Equally important thing in the start of the class is a method of topic learning by doing tests, case tasks by each student at home. The department developed 60 case situational tasks in different topics in cardiology, and electronic situational tasks, task sets in cardiology from KROK-2 are used, a database of more than 300 electrocardiograms was organized. Beyond that the topic learning is done by discussion and answering specific questions highlighted in study guides for students. After learning academic basics of the topic in the classroom, the next stage is learning of practical skills at thematic patient's bedside and activity in a training center. In the training center 6-year students, as well as 2-year students of specialty «General Medicine» and 2-year students of specialty «Nursing» from medical college based on SHEI «Ivano-Frankivsk National Medical University» have an ability to imitate emergencies in a form of a game.

Also as a help for both a tutor and a student, Department of Internal Medicine №2 and Nursing introduced into the educational process «Interactive Response System QRF300» (Qomo Hite Vision) that allows to perform testing of 50 trainees or students at the same time that is very important for 6-year students. To perform interactive testing, the department developed tests and situational tasks adapted to the system. «Interactive Response System» is successfully used for performing

clinical discussions in classes, clinical thinking, for preparation and check of tests «KROK-2». With the help of the system, it is possible to save each student's answers and progress history, while they get an individual ID. Different designs are supported such as usual testing as well quiz regimen.

Conclusions. Introduction of interactive technologies play an important part in the modern education. The main and important thing in this process are connections between students, their cooperation and collaboration. Results in studying are achieved with mutual efforts of the participants of educational process, students take upon themselves responsibility for results of studying that increases quality and practical usage of their knowledge in future.

References:

1. Aronson L. Twelve tips for teaching reflection at all level of medical education. *Med. Teacher.* 2011; 33(3):200-5.2
2. Dent JR, Harden RM. *A practical guide for medical teachers.* Edinburgh, London, New York, Oxford, Philadelphia, St. Louis, Sydney, Toronto: Churchill Livingstone Elsevier. 2009. P.435.
3. Bekh ID. Osobystisno-zoriyentovane vykhovannya: shlyakhy realizatsiyi. *Ridna shkola.* 2000; 1(4):10-3.
4. Khukhlina OS, Kanyovska LV, Voyevodka OS. Vykorystannya interaktyvnykh metodiv navchannya pry vyvchenni osnov vnutrishnyoyi medytsyny. Vprovadzheniya novykh tekhnolohiy za kredytno-modulnoi systemy orhanizatsiyi navchalnoho protsesu u VM(F)NZ III-IV rivniv akredyatsiyi: materialy Vseukr. navch.-nauk. konf., prysvyachenoi 55-richchyu Ternopilskoho derzhavnoho medychnoho universytetu imeni I. Ya. Horbachevskoho; 2012 Apr 26-27; Ternopil: Ukrmedknyha; 2012. P.415-6.
5. Kulishov S, Tretyak N, Prykhodko N. Keys- ta fraktakni tekhnolohiyi yak zasib pokrashchennya yakosti navchannya vnutrishniy medytsyni, kreatyvnomu klinichnomu myslennyu. New information technologies in education for all: Models and Infrastructures: proceedings of the Seventh International Conference; 2012 Nov 27-28; Kyiv: ITEA-2012; 2012. P.268-71.
6. Kovalchuk L.Y. Novitni shlyakhy vdoskonalennya pidhotovky fakhivtsiv u Ternopilskomu derzhavnomu medychnomu universyteti imeni I. Ya. Horbachevskoho. *Medychna osvita.* 2010;2:27-30.
7. Kudrya IP, Kulishov SK. Formuvannya profesiynoyi osobystosti likarya cherez zastosuvannya v navchanni pryntsyypiv vnutrishnyoyi medytsyny, informatyky, nelineynoyi matematyky. Yevropeyskyi vybir – nevid'yemna skladova rozvytku vyshchoyi medychnoyi osvity Ukrainy: materialy navchal.-metod. konf. 2013 May 23; Poltava; 2013. P.101-2.
8. Sulima Y. Nevkladni zavdannya systemy vyshchoyi osvity na novomu etapi Bolonskoho protsesu. *Vyshcha shkola.* 2010; 1:5-13.
9. Volosovets OP, Pyatnytskyi YS, Vitenko IS. Udoshkonalennya zasvoyennya praktychnykh navychok i metodyk studentamy ta likaryamy-internamy – vazhlyva skladova kadrovoyi perebudovy pervynnoyi lanky medychnoyi dopomohy naseleennyu Ukrainy. *Medychna osvita.* 2012; 3:5-7.

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**ВИКОРИСТАННЯ ІНТЕРАКТИВНИХ
МЕТОДІВ НАВЧАННЯ ПІД ЧАС ВИКЛАДАННЯ
ВНУТРІШНЬОЇ МЕДИЦИНИ СТУДЕНТАМ 6
КУРСУ**

Н.Б. Тимочко

*Івано-Франківський національний медичний
університет, кафедра внутрішньої медицини № 2
та медсестринства,
м. Івано-Франківськ,
ORCID ID: 0000-0002-5319-5468,
e-mail: dr.ntymochko@gmail.com*

Резюме. Мета роботи – проаналізувати використання інтерактивних методів навчання під час викладання внутрішньої медицини студентам 6 курсу медичного факультету.

Основна частина у підготовці лікаря в сучасних умовах повинна відповідати як питанням охорони здоров'я, так і суспільства в цілому, при цьому сучасний лікар не тільки повинен бути компетентний у сфері своїх вузькопрофесійних завдань, але і легко орієнтуватися в питаннях діагностики і лікування, основ доказової медицини, володіти інформацією щодо міждисциплінарної тематики. Інтерактивний метод навчання передбачає як підвищення якості викладання теоретичного курсу з використанням сучасних технологій (проблемні лекції, лекції майстер-класи, лекції прес-конференції [4,8,9]), так і практичної підготовки, де поряд із традиційними підходами – робота студентів із хворими, імітаційні ділові ігри, різні види дискусій, семінари-тренінги, кейс-метод (активного проблемно-ситуаційного аналізу).

Від якості медичної освіти залежатиме якість надання медичної допомоги в Україні. А оскільки впровадження інтерактивних технологій у викладанні дає змогу отримати високі знання студентам, а у майбутньому – висококваліфікованим лікарям – спеціалістам різної практики, саме такі технології мають бути впровадженими у педагогічний процес кожним викладачем вищих медичних університетів.

Висновки. Впровадження інтерактивних технологій викладання дасть змогу у майбутньому отримати висококваліфікованого лікаря-практика.

Ключові слова: інтерактивні методи, внутрішня медицина.

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**ИСПОЛЬЗОВАНИЕ ИНТЕРАКТИВНЫХ
МЕТОДОВ ОБУЧЕНИЯ ПРИ ПРЕПОДАВАНИИ
ВНУТРЕННЕЙ МЕДИЦИНЫ СТУДЕНТАМ 6
КУРСА**

Н.Б. Тимочко

*Івано-Франківський національний медичний університет, кафедра внутрішньої медицини № 2
та медсестринства,
г. Івано-Франківськ,
ORCID ID: 0000-0002-5319-5468,
e-mail: dr.ntymochko@gmail.com*

Резюме. Цель работы – проанализировать использование интерактивных методов обучения при преподавании внутренней медицины студентам 6 курса медицинского факультета.

Основная часть в подготовке врача в современных условиях должна отвечать как вопросам охраны здоровья, так и общества в целом, при этом современный врач не только должен быть компетентен в области своих узкопрофессиональных задач, но и легко ориентироваться в вопросах диагностики и лечения, основ доказательной медицины, владеть информацией из междисциплинарных областей. Интерактивный метод обучения предполагает как повышение качества преподавания теоретического курса с использованием современных технологий (проблемные лекции, лекции мастер-классы, лекции прес-конференции), так и практической подготовки наряду с традиционными подходами – работа студентов с больными, имитационные деловые игры, различные виды дискуссий, семинаров-тренингов, кейс-метод (метод активного проблемно-ситуационного анализа).

От качества медицинского образования будет зависеть качество оказания медицинской помощи в Украине. А поскольку внедрение интерактивных технологий в преподавании позволяет получить высокие знания студентам, а в будущем – высококвалифицированным врачам – специалистам различной практики, именно такие технологии должны быть внедрены в педагогический процесс каждым преподавателем высших медицинских университетов.

Выводы. Внедрение интерактивных технологий преподавания позволит в будущем получить высококвалифицированного врача-практика.

Ключевые слова – интерактивные методы, внутренняя медицина.

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