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PRACTICAL SKILL-BUILDING AT THE DEPARTMENT OF EMERGENCY MEDICAL SERVICE

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This article describes innovative teaching methods at the Department of emergency medical service of students of the 5th year of training, specialty «General medicine», the discipline «Emergency medical service». To introduce the practical skills on the basis of interdisciplinary approach and team work skills, the classes were conducted in the Center for practical skills of Karaganda state medical university (Karaganda, Kazakhstan). Analysis of this method introduction into practice showed a positive response from students who noted better perception and assimilation of received material as a result of practical training using this method.

Key words: medical students, emergency medical service, interdisciplinary training, center of practical skills

Improving the education system, having the main goal to improve quality and effectiveness of training specialists, requires introduction of new methods and tools for the learning process organization [2].

Expediency of using active methods agrees with the data of experimental psychology, according to which 10% of the material is heard by ear, 50% of the material seen and 90% of what the students have done themselves are learnt [3].

The basis of innovative educational technologies used in the educational process should be a social order, professional interests of future specialists, consideration of individual, personal characteristics of students [4]. Therefore, when training specialists in higher education, the use of innovative forms and methods must be competently combined with pragmatic understanding of goals and objectives of education and training [6].

Innovative forms of organization of cognitive activity should ensure activity of students (beginners), sociability, competence, and form their ability to make independent decisions with formation of their own worldview and style of activity [5]. They create conditions for formation and consolidation of professional knowledge, skills and abilities of students, contribute to the development of professional qualities of the future specialist [1].

The use of innovative methods by teachers in the teaching process contributes to overcoming stereotypes in teaching various disciplines, developing new approaches to professional situations, developing creative abilities of students [7].

Thus, development of practical skills among students in Center for practical skills (CPS) of Karaganda state medical university (KSMU) (Karaganda, Kazakhstan) on the basis of interdisciplinary approach contributes to the students of

senior courses to optimize development of teamwork skills, clinical and communicative skills, and consolidate theoretical knowledge. The created educational environment reduces risks when interacting with real situations and helps to achieve necessary professionalism.

Medical education is impossible without contact and communication with real patients. However, the patient's safety and well-being represent a fundamental ethical issue in medical education. Mastering practical skills in the learning process is of great importance in order to overcome the barrier between student's theoretical knowledge and its practical application. Therefore, training in the conditions of CPS can help solve this problem of practical skills building, attitudes and professional values of medical specialists while protecting patients from unnecessary risk.

Objective - to optimize the practical skills building for students during emergency service for infectious-toxic shock in the conditions of CPS based on interdisciplinary approach.

MATERIALS AND METHODS

The study included 50 fifth-year students of KSMU in the specialty «General medicine». Practical skills building was conducted in the CPS of KSMU.

The students were offered a clinical case For analysis: «Provision of emergency service for a pregnant woman with extragenital pathology (flu complicated by an infectious-toxic shock)».

As per condition of the clinical task, the pregnant woman, at a routine examination at the gynecologist at the place of residence, complained of catarrhal signs and hyperthermia, so the gynecologist sent the pregnant woman to a general practitioner (GP) consultation. After the examination, the GP was diagnosed: Flu, an unidentified type, of moderate severity. Pregnancy 22 weeks. A general practitioner, together with an obstetrician-gynecologist recommended to

hospitalize a patient. The patient refused hospitalization by writing a written note. Treatment was prescribed and recommendations were given: UAC, CBC. In a day, the condition of a pregnant woman worsened. Her husband called an ambulance. Diagnosis of an ambulance doctor: Pregnancy 22 weeks. Flu. Infectious-toxic shock II degree. The following describes the tactics of an ambulance doctor at a prehospital stage.

To develop a practical skill in the CPS by teaching staff of the KSMU departments: emergency medical service, general medical practice, and obstetrics and gynecology, compiled methodological instructions with algorithm of emergency service for infectious-toxic shock and materials for self-evaluation.

Guidelines for students on teaching clinical skills at the center of practical skills included the following parts: goal; time required for preliminary briefing and demonstration of skill on the mannequin; time required for self-mastering the skill; necessary theoretical knowledge for mastering the clinical skill; a list of mannequins, models, visual aids, interactive computer programs necessary for mastering the clinical skill; list of medical products and equipment; description of algorithm execution; materials for self-evaluation on the lesson topic (tests); criteria for assessing the skill performance and a list of recommended literature.

RESULTS AND DISCUSSION

When conducting a role-playing game to develop practical skills, students actively discussed tactics of managing a pregnant woman with extragenital pathology at all stages of treatment (outpatient, prehospital, hospital), answering questions such as: what methods of examination and treatment are applicable in this situation and how not to harm to a pregnant woman and a fetus?

Analysis of skills assessment results showed a good level of proficiency in basic skills in the provision of medical service.

Despite the good results, students made mistakes and inaccuracies in the performance of some skills. Evaluation of the results was carried out according to the 4-point system: 80% of the students scored 3.33 points (B+); 15% – 3.67 points (A-) and only 5% of students showed a very good knowledge of practical skills – 4.0 points (A). Average grade for lesson was B+ (fig. 1).

Each team had its own task, and outcome of the disease depended on correct performance of this task. After the end of the lesson, a debriefing took place, revealing mistakes made

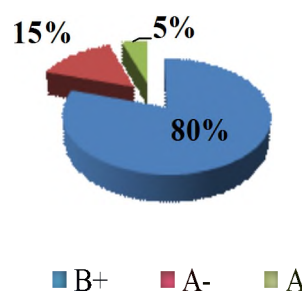


Figure 1 – The result of students' practical skills assessing

during practical skills building. Students filled out a feedback form with suggestions and wishes. 90% of the students noted that interdisciplinary training in the CPS positively influences the formation of such competencies of the medical university graduate as clinical skills, teamwork skills, professionalism and communication skills.

Thus, the introduction of interdisciplinary approach in the CPS facilitated optimization of the practical, clinical and communication skills building of students and the consolidation of theoretical knowledge.

CONCLUSIONS

1. When conducting a role-playing game in a clinical scenario that is close to reality, students consolidate their theoretical knowledge with practical skills, and there is a high assimilation of educational material.

2. The interdisciplinary approach in training allows to observe the patient at all stages (outpatient, prehospital, hospital) of medical service and pay attention to the nuances that can be noted at observation of pregnant women with infectious diseases.

3. The interdisciplinary approach to training in the CPS positively influences the formation of practical skills and competencies of a medical university graduate.

4. The interdisciplinary approach in training allows to evaluate not only the theoretical knowledge of students, but also the level of technical, non-technical, including communicative skills, and to determine the measures for their improvement.

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*ФОРМИРОВАНИЕ ПРАКТИЧЕСКИХ НАВЫКОВ ОБУЧАЮЩИХСЯ НА КАФЕДРЕ СКОРОЙ МЕДИЦИНСКОЙ ПОМОЩИ
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В статье представлен анализ применения инновационных методов обучения на кафедре скорой медицинской помощи Карагандинского государственного медицинского университета (Караганда, Казахстан) у студентов 5 курса, специальности «Общая медицина», по дисциплине «Скорая неотложная медицинская помощь». Для освоения практических навыков на основе междисциплинарного подхода и навыка работы в команде занятия проводились в условиях Центра практических навыков Карагандинского государственного медицинского университета. Анализ внедрения данного метода обучения в практику показал положительный отзыв со стороны студентов, которые отметили лучшее восприятие и усвоение полученного материала в результате проведенного практического занятия по используемому методу.

Ключевые слова: студенты-медики, скорая медицинская помощь, междисциплинарное обучение, Центр практических навыков

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*ЖЕДЕЛ МЕДИЦИНАЛЫҚ КӨМЕК КАФЕДРАСЫНДА СТУДЕНТТЕРДІҢ ПРАКТИКАЛЫҚ ДАҒДЫЛАРЫН ҚАЛЫПТАСТЫРУ
Қарағанды мемлекеттік медицина университетінің жедел медициналық көмек кафедрасы (Қарағанды, Қазақстан)*

Осы мақалада «Төтенше жағдайлардың алғашқы көмегі» пәні бойынша «Жалпы медицина» мамандағының 5 курс студенттеріне жедел медициналық көмек кафедрасында инновациялық оқыту әдістерін қолдану ұсынылған. Пәнаралық тәсіл негізінде практикалық дағдыларды игеру және командада жұмыс істеу дағдылары бойынша сабақтар ПДО жағдайында өткізіледі. Осы әдіспен өткізілген практикалық сабақтардың нәтижесі бойынша қабылданған материалды үздік қабылдауды және менгеруді атап өтті. Осы әдіс-практиканы практикада жүзеге асыруға жүргізілген талдау студенттердің оң жауаптарын көрсетті.

Кілт сөздер: медициналық студенттер, жедел медициналық көмек, пәнаралық оқыту, практикалық дағдылар орталығы