OSCE AS A METHOD OF EVALUATING THE PRACTICAL SKILLS OF GRADUATES OF MEDICAL UNIVERSITIES

Abstract. The modern medical labor market requires an increased level of training for new graduates who will possess such qualities as the ability to independently formulate tasks and determine ways to solve them within the limits of professional competence, the ability to analyze professional activity, the ability to work in a team, the ability to establish social ties, continuous self-education, solving professional problems in order to increase labor productivity and other tasks that form such qualities. In addition, future medical professionals must have a culture of thinking and a growing professional interest in solving specialized diagnostic tasks. In order to develop these qualities, it is necessary to equip future specialists not only with a solid theoretical knowledge, but also with the ability to apply this knowledge in practice. The training of future doctors is carried out in different ways, but all of them are aimed at the formation of professional medical abilities and successful and effective treatment of patients during independent activities.

To this end, in recent years, most medical universities of Ukraine have introduced an objective structured clinical examination (OSC) as a test of students' practical and theoretical skills. The implementation of the OSCE project as an option for the final exam is an incentive for graduates of medical universities to gain experience before internship, which requires them to know not only the etiology of the disease, the clinic and treatment, but also the ethics of communication with patients, a practical approach and quick clinical thinking. The exam takes place in the form of quests, during which you need to pass several points — stations at which various clinical situations are simulated. Students consistently move from station to station, perform planned manipulations while interacting with real or standardized patients.
The main principles of OSCE are objectivity and structure. Objectivity is largely determined by the standardized grading scale and the fact that one trained examiner asks the same questions to all students taking the exam.

**Keywords:** OSCE (objective structured clinical exam), practical skills, medical specialists, competence approach

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**ОСКІ ЯК МЕТОД ОЦІНЮВАННЯ ПРАКТИЧНИХ НАВИЧОК ВИПУСКНИКІВ МЕДИЧНИХ ВНЗ**

**Анотація.** Сучасний медичний ринок праці вимагає підвищеного рівня підготовки до нових випускників, які володітимуть такими якостями, як здатність самостійно формулювати завдання та визначати шляхи їх вирішення в межах професійної компетентності, здатність до аналізу професійної діяльності, вміння працювати в команді, вміння налагоджувати соціальні зв’язки, безперервної самоосвіти, вирішення професійних проблем з метою підвищення продуктивності праці та інші завдання, що формують такі якості. Крім того, майбутні фахівці-медики повинні мати культуру мислення та зростаючий професійний інтерес до вирішення спеціалізованих діагностичних завдань. Для того, щоб розвинути ці якості, необхідно озброїти майбутніх фахівців не тільки солідним багажем теоретичних знань, а й умінням здійснювати ці знання на практиці. Підготовка майбутніх лікарів здійснюється по-різному, але всі вони спрямовані на формування професійних медичних здібностей і успішне і ефективне лікування пацієнтів під час самостійної діяльності.

З цією метою протягом останніх років більшість медичних університетів України запровадили об’єктивно структуроване клінічне обстеження (OSC) як перевірку практичних та теоретичних навичок студентів. Впровадження проекту OSCІ в якості варіанту проведення випускного іспиту є стимулом для випускників медичних вузів набути досвіду перед стажуванням, яка вимагає від них знання не тільки етіології захворювання, клініки і лікування, а й етики спілкування з пацієнтами, практичного підходу і швидкого клінічного
мислення. Іспит проходить у формі квестів, в ході яких потрібно пройти кілька точок — станцій, на яких моделюються різноманітні клінічні ситуації. Студенти послідовно переходять від станції до станції, виконують заплановані маніпуляції при взаємодії з реальними або стандартизованими пацієнтами.

Основні принципи ОСКІ це об’єктивність і структурованість. Об’єктивність значною мірою визначається стандартизованою шкалою оцінки та тим фактом, що один підготовлений екзаменатор задає однакові запитання всім студентам, які здають іспит.

Ключові слова: ОСКІ (об’єктивний структурований клінічний іспит), практичні навички, фахівці-медики, компетентністний підхід

**Formulation of the problem.** Innovations in medicine, openness of borders, efforts to meet world standards of medical care provide prerequisites for the formation of a new educational paradigm and reorganization of the system of training medical personnel [1, 2]. A modern and competitive doctor must be able to quickly learn new information, adapt to the use of new technologies, be able to integrate and work in a team, consider the patient as a full participant in the diagnostic and treatment process, using his acquired experience in the disease, and communicate with him accordingly [3, 4]. The rapid development of modern society puts new demands on a modern specialist in any field. In these conditions, the requirements for the qualification of an effective specialist in the health care system also change [5, 6].

The preparation of a graduate ready for practical activity and the need for continuous professional development determine the need not only to possess theoretical knowledge and practical skills, but also to be able to apply them in various, including complex and atypical situations, that is, to possess competencies [7]. Moreover, not only professional (medical) competences are important, but also social, communicative, informational, educational, professionalism, etc. Thus, the competence approach becomes a reality of modern education and is actively implemented in the educational process [8].

**Analysis of recent research and publications.** Our research is consistent with researchers [9-11] who believe that OSCE is an unbiased and standardized method of assessing students' practical skills in comparison with the traditional classic clinical practical exam. In addition, it was implied that the majority of participants respond positively to OSCE, as they perceive OSCE as a fair tool for assessing practical skills covering a large part of academic subjects [12].

These findings are also consistent with the results of previous studies, which showed that more than two-thirds of their participants perceived OSCE as a fair tool for testing knowledge that can cover various clinical skills and substantiate the feasibility of theoretical and practical material that students learn during the educational process [13-16]. Thus, the participants of these studies developed...
positive attributes [13, 17] and a favorable attitude towards OSCE [10]. The results of our study are consistent with the results of other studies [9-11,18], in which participants perceived OSCE as an important tool for assessing skills and knowledge. A high acceptance by OSCE students for the assessment of clinical and practical skills [18] in various disciplines was noted.

**The aim of the study.** To analyze the effectiveness of assessing students' abilities and skills using an objective structured clinical exam.

**Presenting main material.** OSCE - an objective structured clinical exam is one of the methods of monitoring the student's acquisition of clinical competence.

OSCE includes basic clinical disciplines. The essence of the exam is assessment of students' practical and communication skills. Real, standardized or virtual patients, mannequins, phantoms, devices, equipment, data sets, and situational tasks are involved in conducting OSCE. The approach to the assessment of clinical competence is based on a comprehensive assessment using stations that simulate various types of clinical competence. Completion of OSCE-1 is carried out by students after the 3rd and 5th year of study in the specialty 222 "Medicine" and 228 "Pediatrics". The same exam is provided for students of specialty 221 "Dentistry". Taking the OSCE-2 exam is planned for students of all majors of graduation courses.

**The main principles of evaluation are reflected in its abbreviation OSCE:**
- objective - all students perform the same task difficulties, which are evaluated using a standardized instrument (check sheet);
- structured – all students perform the same tasks in the same clinical situations, the same level of complexity the same period of time, successively moving from one station to another according to a certain route.
- clinical – tasks at each OSCE station are created on the basis of real clinical situations in which students apply acquired theoretical knowledge and practical skills;
- exam - students' competencies and skills are evaluated based on the above principles.

The experience of OSCE in many developed countries has shown that the proposed method of evaluating graduates has a number of advantages, namely:
- creating for all students the same conditions and tasks for fairer assessment,
- the grade for completing each task depends on the number correctly named items,
- certain privileges of the examiner are excluded,
- stimulates students to behave effectively in stressful situations.

The main purpose of OSCE is its ability to evaluate multiple dimensions clinical competencies of candidates:
- History collection;
- Physical examination;
Interpersonal communication skills;
Communication skills;
Professionalism;
Data collection;
Understanding of the development of pathological conditions;
Making decisions based on evidence;
Primary medical care skills;
Patient-centered care;
Disease prevention;
Safe and effective practice of medicine.

But, in our opinion, in addition to OSCE, there should be a standard final exam, where the student can demonstrate clinical thinking skills, the basics of differential diagnosis, treatment and prevention of diseases without limiting the answers according to the evaluation sheet. Also, when communicating with a standardized patient, the student cannot see the patient as a whole, cannot practice certain practical skills, because the patient is programmed for a specific task that was set before him.

A large team of specialists is needed to successfully conduct an exam in the OSKI format. As a rule, in higher educational institutions there are departments or responsible persons who control the assessment of students' knowledge. A well-planned exam can stimulate learning and development of medical education at the faculty. When planning OSKI, it is necessary to rely on the following principles:

- The exam should be designed to assess certain knowledge and skills that cannot be assessed through a written exam or computer-based testing.
- Typical examples of such skills are the ability of examinees collect history or perform medical manipulations. It is important that the practical skills required to perform the tasks were not tested in isolation, but in combination with other skills, for example, applying knowledge or making a treatment plan, which makes it possible to assess the performance of tasks more comprehensively.

Errors in the organization of OSKI can lead to the fact that the examinees will only pass the exam ("remember-pass-forget"), and not improve their performance of clinical tasks. At the same time, it is important not to overload examinees with assessment by trying to assess too many components of task performance at one examination station.

At the Bukovyna State Medical University, considerable attention is paid to the improvement of existing and the development of new ones forms and methods of assessing students' knowledge and skills. In order to improve the system for assessing professional skills, the level of mastery of competences and preparation for the organization of the unified state qualification exam (USQE) for holders of the Master's degree in the field of knowledge 22 "Health care" in 2018-2019, a new approach was introduced to organization of the exam on practical skills in the form
of an objective structured clinical exam (Objective Structured Clinical Examination (OSCE). This is a modern method of assessing students' practical knowledge and skills, which is widely used in many countries of the world and is designed to verify their acquisition of clinical skills and competencies that cannot be assessed by traditional forms of exams.

Before the start of each exam, students are registered and instructed. At registration, the student's identity is identified, a route sheet is issued, an identification number is assigned, as well as a serial number - the number of the station from which the student begins to take the exam. These numbers are indicated on the badge, which is also issued during registration. Each examiner notes the identification number on the checklist and answer sheet instead of personal data, which ensures the objectivity of the assessment. In addition, students are informed about the format and rules of the exam, behavior and the order of stations, and they also sign a document on confidentiality and non-disclosure of assignments.

When the bell rings, the student enters the room where he receives the assignment. He carefully reads it and performs certain actions according to the standard algorithm of actions in the described clinical situation. If a student does not complete the task within 6 minutes, he interrupts his work and moves on to the next station, if he completes it before the deadline; he remains in the room until the call. During the performance of the task, the examiner does not interfere in this process in any way, but only evaluates the student's skill, noting the actions performed by him in the checklist. During the break, the student goes to the next station on the route.

The maximum grade for completing a task at 1 station is 1 (one) point, respectively, the maximum number of points per exam is 12. The exam is considered passed if the student scored at least 7.0 points (60% of the maximum number).

Conclusions. OSCE, as a component of the Unified State Qualification Examination (USQE) is a good project in universities for training future doctors for practical skills, because it tests not only the student’s practical skills acquired during training (the ability to perform medical manipulations and communicate with patients), but also the psychological readiness of the future doctor to help people by applying the acquired theoretical knowledge, but it cannot be used as the only method of evaluating graduates.

Systemic changes in education create conditions for development and the use of control methods not only theoretical knowledge and practical skills, but also the ability to correctly apply them in real conditions. Using the format of an objective structured clinical exam makes it possible not only to assess the degree of mastery of competencies, but also contributes to increases students' interest in learning and forms clinical thinking.

References:


Література:
3. Розвиток практично-орієнтованого та симуляційного навчання в Тернопільському державному медичному університеті імені І. Я. Горбачевського / М. М. Корда, А. Г. Шульгай, А. А. Гудима, С. Й. Запорожан // Медична освіта. – 2016. – № 2. – С. 54–57.
8. Про затвердження Порядку, умов та строків розроблення і проведення єдиного державного кваліфікаційного іспиту та критеріїв оцінювання результатів : наказ МОЗ від 19.02.2019 р. № 419.

