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## INTERACTIVE METHODS FOR GENERAL SURGERY TEACHING

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**Summary:** In this paper we considered the application of case-study method in teaching general surgery students medical faculties. The main stages of work on this case and their characteristics are given. Application of case-study method in teaching general surgery, on the one hand, stimulates the individual activity of students, creates a positive motivation to learn, reduces the "passive" and diffident students, provides high performance of and development of future training professionals, creates certain personal qualities and competencies, and, on the gives the teacher other hand, opportunity to self-improvement, think differently and act and update his own creativity.

<u>**Key words:**</u> general surgery, the method of case-study, cases.

The main purpose of the course of general surgery is to master by students the basics of clinical examination of surgical patients, to familiarize themselves with the semiotics of major types of surgical diseases, the principles of diagnosis and treatment of some socially significant surgical diseases. General surgery, as well as a number of other subjects that are studied in higher medical

schools, is a bridge to the transition from theory to practice and plays a special role in shaping the outlook of a future doctor. There is no doubt that today's specialists-doctors should be prepared not only theoretically, but also to have perfectly certain practical skills, to be able to fulfill one or another medical manipulation, to know and be able to consistently apply measures to save a patient's life.

The reform of higher education and science in Ukraine envisages the development improvement of scientific methodological support of teaching disciplines, the introduction of innovations into the educational process. At the same time, the teaching of general surgery, as well as other applied medical disciplines, was accompanied by a number of difficulties. This is due to the entry of medical services into the modern legal field, which prevents students from developing professional skills in patients at the clinic. Under these conditions, students do not receive the necessary knowledge and skills in general surgery for a period of study in a medical school of a medical school.

Increasing the requirements for the professional qualities specialists of necessitates the improvement of teaching, the use of methods aimed not at the transfer of the finished knowledge, but on creating conditions for the student's creative activity. Regarding the health care sector, it is also necessary to consider that the provision of medical care is becoming more and more high-tech and requires the introduction of appropriate teaching methods. Interactive methods of learning, in particular the use of computer business games and simulation dummies, are increasingly recognized tools as that implement such approaches [1, 3, 4].

The purpose of the work is to analyze the possibilities of using the case-study method during professional training as an interactive method of training and the feasibility of using it in classes on general surgery.

The case-study method (or case-study method) is a pedagogical technology based on modeling a situation or using the actual situation to analyze the case, identify problems, find alternative methods of solving

and adopt an optimal solution to a problem. [7, 8]. A feature of the case-method is to create a problem situation based on facts from real life.

The immediate purpose of the casemethod - the joint efforts of a group of students to analyze the situation - a case that arises at the specific situation of affairs, and make a practical decision; completion of the process evaluation of the proposed algorithms and as a result - either develop, or choose the best in the context of the problem.

The introduction of the case-method in the practice of higher professional education in our time is very expedient, which is due to two tendencies:

- the first as a consequence of the general direction of the development of education, its orientation is not so much for obtaining specific knowledge as for the formation of professional competence, skills and abilities of mental labor, the development of personality abilities, among which special attention is paid to the ability to study, the replacement of the paradigm of thinking, the ability to process a large volume of information;
- the second one is conditioned by the quality requirements of a specialist who, in addition to the first tendency, should have the ability to behave in the best way in different situations, differ in systemic and effective action in crisis situations, which is especially relevant in surgery [3, 6].

Any case allows the teacher to apply it at different stages of the educational process: at the stage of training, and in the stage of checking the results.

Application of case-method in teaching students of different specialties allows to increase interest in educational disciplines, to improve the concept of laws, helps to develop research, communication and creative skills in decision-making. A distinctive feature of the case-method is to create a problem situation based on facts from the real life. Created as a method of studying economic disciplines, at this time the case-method has found wide application in the study of medicine, jurisprudence and other sciences [4, 5].

Case method - a tool that allows you to apply theoretical knowledge to solve practical problems. The method contributes to the development of students' independent thinking, ability to take into account an alternative point of view, reasonably express their own. With this method students have the opportunity to demonstrate and improve analytical and evaluation skills, learn to work in a team, find the most rational solution to the problem. Being an interactive learning method, the case method gains a positive from the students, providing the development theoretical positions and mastering practical use of the material; it affects the professionalization of students, promotes their growth, creates an interest and positive motivation in relation to learning. At the same time, the method is also a monitor that reflects the teacher's thoughts, his particular paradigm, which allows him to think and act differently, to update his creative potential.

Formation of the skills to master the basic theoretical material independently, practical skills and professional skills are achieved by:

- formation of clinical thinking;
- abstraction of the process of assimilation of the material;
- definition and planning of the sequence of steps to fulfil the task;
- ability to work with sources, mobilize existing work to solve a task;
- self-monitoring and evaluation of the results of their work.

Work on the case involves: analyzing a particular situation from a certain scenario, which includes independent work; "Brainstorming" in networks of a small group; public speaking with the presentation and protection of the proposed solution, a control survey of the participants on the subject of knowledge of the facts case study. Work on the case is divided into three main stages: home independent work, work in the audience and the final stage after the employment [2, 9].

And the stage - the pre-made cases are distributed by the teacher to students in advance, but not later than the day before the lesson. Students examine the case on their

own, pick up additional information and literature to solve it.

The second stage - classes begin with the control of knowledge of students, to find out the central problem that needs to be addressed. Divide a clinical group of students into small working groups that receive different situations for solving the case. The teacher controls the work of small groups, helps, avoiding direct consultations. Students auxiliary literature, can use textbooks, directories. Each small group chooses a "speaker", who expresses the group's opinion at the stage of presentation of decisions. During the discussion possible questions for the speaker, speeches and additions of the group members, the teacher follows the course of the discussion and by voting is elected a joint decision of the problem situation.

At the third stage, summarizing the results, the teacher informs about solving the problem in real life or justifies its own version and necessarily publishes the best results, evaluates the work of each small group and each student. When conducting classes in the beginning it is possible to study algorithms, further testing of professional skills and skills, and finally, simulation of professional activity in the form of a case-method.

For effective use of the case-method, it is necessary to create special conditions: 1. ensuring a sufficiently high complexity of cognitive problems that students need to address; 2. the creation of a logical series of questions on the cognitive problem that urge students to seek the truth of creating an atmosphere of psychological comfort in the audience, which should facilitate the free expression of students' thoughts, without fear of mistakes; 3. devoting special time to understanding ways to solve the problem; 4. organization of special training of teachers for the introduction of the methodology [2].

As a rule, in all discussions, when discussing cases, the teacher formulates four main questions:

- 1. Why does the situation look like a dilemma?
  - 2. Who made the decision?
- 3. What solutions did the decision maker have?

## 4. What did he need to do?

Taking into account the answers to these questions, the teacher should predict the development of the discussion and adjust its putting those questions highlighting those points for consideration of which he would like to direct the discussion. In doing so, you need to be prepared to ensure that students can express views and views that are not foreseen in advance. The teacher should be very emotional throughout the entire learning process, allow and prevent conflicts, create conditions for cooperation and competition at the same time, reduce the role of the teacher as the only "keeper" of knowledge, increase his role as an expert and consultant, helping the student navigate the world of scientific information.

Evaluating the participants in the discussion is the most important learning problem with the help of the CASE-study method. It is best to use a multicomponent method for forming a final evaluation, the components of which will be evaluated for: theoretical training, practical skills, clinical thinking when forming the diagnosis, participation in the discussion, interaction in the group when working with medical documentation, the ability to make the right decision in an atypical clinical situation.

In our work, we use case-cases, casestudies and case signations. Case-case is used when lecturing in order to illustrate a particular illness, to justify methods of its diagnosis and prevention. The case practice gives the student the opportunity to apply in practice the acquired skills for disease diagnosis. In the case-situation, the most frequently asked question is: "Why has the situation developed and how can the situation be corrected?" At the same time, students are offered non-typical tasks, where the complications of the underlying disease are presented, when a specific example is the learning of the decision-making algorithm in a particular situation. To solve cases, we recommend to work out the materials for preparation for practical classes and lectures, presentation of video demonstration lectures, examination of patients with a specific pathology, websites on this topic, abstracts of modern articles, abstracts of articles, list of recommended literature.

Teaching students through the use of the case-method enables to stimulate the individual activity of students, to form positive motivation for learning, reduces the number of "passive" and uncertain students, as well as provides high efficiency training and development of future professionals. In turn, introducing in the educational process a method of analysis of specific situations, teachers will be able to self-improve, think differently and update their own creative potential without much material and time costs. As a result of the use of the case-method, teachers do not simply convey knowledge, as

in traditional teaching methods, but teach the ability to cope with unique and non-standard situations, focusing on analytical and decision-making skills.

The application of the case-method in the teaching of general surgery, on the one hand, stimulates the individual activity of students, creates a positive motivation for learning, reduces the "passive" and uncertain students, provides high efficiency training and development of future specialists, forms certain personal qualities and competences, and, on the other hand, prompts the teacher to self-improvement.

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