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TABLE OF CONTENTS

AGRICULTURAL SCIENCES

BIOLOGICAL SCIENCES

MEDICAL SCIENCES

TECHNICAL SCIENCES

PHYSICAL AND MATHEMATICAL SCIENCES

MEDICAL SCIENCES

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THE USE OF SMALL GROUP DISCUSSIONS (SGD) IN PHARMACOLOGY CLASSES AS A COMPONENT OF THE FORMATION OF PROFESSIONALLY ORIENTED KNOWLEDGE COMPETENCE

Kucher Tetiana Volodymyrivna
Candidate of Biological Sciences, Assistant
Zaporizhzhia State Medical and Pharmaceutical University
Zaporizhzhia, Ukraine

Abstract: The main task of higher education at the present stage is to train students who are able not only to obtain certain theoretical knowledge but also to master the skills of applying the acquired knowledge in specific situations.

Keywords: Pharmacology, technique of group classes, problem-based learning, small group discussions, situational tasks, structural logic diagrams, Step-by-step Discussions

Pharmacology is, first and foremost, an interdisciplinary subject, the result of which is an understanding of the effect of drugs on the human body. As a result, students receive the necessary theoretical basis for the agonistic or antagonistic effect of drugs on certain receptors in the body tissues, the main biochemical pathways of interaction with the corresponding receptors, pharmacokinetics, drug metabolism, mechanisms of drug dependence and toxic effects of drugs, especially taking into account the genetic variation of each person in his or her response to the drug.

Effective teaching of pharmacology is necessary to ensure that medical students are, first and foremost, competent in the use of medicines [1]. Safe and effective prescribing is a fundamental skill that medical graduates need to acquire, as

improper prescribing can lead to exacerbation or prolongation of the disease and harm to the patient.

Pharmacology forms the basis of medical practice, but most students perceive it as a difficult subject. Given the intensive creation of new forms of drugs (drug discovery), traditional models of teaching medical students are becoming outdated and do not contribute to the successful mastery of pharmacology. A certain difficulty in teaching pharmacology is the constant change in the nomenclature of registered medicines, ideas about the mechanisms of action of medicines, side effects, dosage forms, and dosage regimens.

It should be noted that the main postulate in teaching pharmacology should be based primarily on the role of the student in the process of learning the material in the discipline [2, 3].

Most universities, including foreign ones, practice a well-established model of teaching pharmacology based on a combination of lectures, practical classes and independent work [4, 5].

In the context of the COVID-19 pandemic, when educational institutions were forced to switch to distance learning, the availability of interactive e-learning platforms in higher education institutions is certainly relevant to ensure the continuity of the educational process [6, 7].

The provision of interactive online resources for teaching pharmacology contributes to the effective involvement of students in the cognitive process [8, 9]. In the course of dialogic learning, students learn to think critically, solve complex problems based on the analysis of circumstances and relevant information, weigh alternative opinions, make informed decisions, and participate in discussions. The use of interactive teaching methods helps to increase students' interest not only in the discipline, but also in medicine in general, and allows them to better understand the goals, objectives and place of pharmacology in the system of higher medical education. This conclusion is consistent with other studies that have shown a positive attitude of students towards the introduction of electronic technologies in their education [10].

To this end, the most reasonable may be to conduct online classes using the technique of group classes (TBL), where the basis is a discussion of the use of certain drugs for a specific pathology of an organ or system with verification of the adequacy of the chosen treatment and monitoring of possible side effects of the proposed drugs [11, 12].

Students note that the TBL strategy encourages more active participation of students in the learning process than traditional lectures, contributes to an increase in the level of final preparation, which is manifested by an increase in exam scores, helps to develop problem-solving and critical thinking skills. The peculiarity of the TBL strategy is the fact that students can rely on their own knowledge, create a discussion with other students to make a final decision [13, 14, 15].

One of the ways to implement the TBL strategy using interactive online resources in teaching pharmacology is to use the problem-based learning (PBL) methodology in small groups (small group discussions, SGD) with an emphasis on the use of the Case-study methodology. The method of small group discussions (SGD) involves the use of cases (situational tasks) with the designation of the problem of using the drug(s) in a specific clinical situation for further discussion [16].

When using small group discussions (SGD) in a practical class, a group of students is divided into teams (2-5 students), which receive 1 "case" each. Students are asked to analyze a specific situation online, understand the essence of the problem, propose possible solutions and choose the best one [17].

The result of using the case method is the actualization of a certain set of knowledge of the student himself, which must be implemented in solving a real clinical problem, which corresponds to the competence approach to the use of drugs or their combinations in solving professional problems, and also ensures maximum interaction of all students in the academic group [18].

Another method of teaching pharmacology that can be productively used in distance learning is the use of structural logic diagrams (SLDs), which contain key concepts, phrases, formulas, and illustrations that are arranged in a certain logical sequence. For example, the teacher prepares didactic material in advance in the form

of a structural logic diagram with empty blocks, and students fill in the empty blocks and establish connections between them.

This method of visual display helps to systematize information, draw parallels between individual data, and allows for faster and more durable memorization of information, because such visualization is based on the structure and associative connections characteristic of human long-term memory.

An alternative way to implement the small group discussion (SGD) strategy is to use the method of "planned mistakes." In this case, the assignment stipulates that there should be deliberate mistakes in the diagram (usually no more than 3-5). In the process of mutual double-checking of works, students must find and correct all planned errors.

In small group discussions, students also have the opportunity to consult with all group members about the pharmacological correction of the "simulated patient" using Step-by-step Discussions to guide the search for an answer.

There are generally three types of questions:

1) "Yes/No" questions - the basic form of questions, very simple and not tiring for the student

2) special questions that require a specific answer, which allows the questioner to test the student's knowledge, but not their level of understanding.

3) open questions – usually do not require a "correct" answer. Allows the questioner to continue the research by asking questions such as "why" and "how". This requires a good understanding of the topic, thinking and problem-solving skills.

An additional advantage of the case methodology in small group discussions is the fact that it standardizes certain requirements for the educational process, unlike, for example, classes only in certain sections of one course, which improves students' communication and analytical skills [19, 20].

Thus, the use of the small group discussion (SGD) method in the practice of teaching pharmacology can be an effective way to form knowledge competence, as students have the opportunity to improve their skills in solving a particular problem. This allows to unleash the potential of each student, promote active learning of

pharmacology and integration of previously acquired fundamental knowledge [21, 22].

At the same time, innovative pedagogical technologies cannot be universal and will not completely replace the traditional form of education, but they can significantly increase the level of professional training of future specialists.

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