USE OF THE CASE METHOD DURING THE STUDY OF THE DISCIPLINE "MEDICAL AND BIOLOGICAL PHYSICS"

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The article is devoted to the important issues of modern education and increasing the level of modern medical professionals' training. The article covers the use of educational cases for practical classes in the discipline «Medical and Biological Physics» in natural sciences cycle for students of the first year of study in specialty "Medicine». The authors present the general structure of the case, which is used to consider most of the topics in practical classes. Pedagogical research (case studies and student interviews) found that students are willing to work in a team, often resorting to in-depth search for information to look more effective as a doctor, which in the future allows them to participate in conferences by presenting scientific reviews; willing to test a decision-making model that can be used in real life; gain confidence that the acquired knowledge will allow them to orientate themselves quickly in clinical cases that will be considered in the future. Such techniques also help students to move easily from the techniques used in secondary education to professional oriented teaching methods. The article presents the results of the survey on the effectiveness of the use of the case method and its perception by students. The results of the study allow the authors to conclude that the consideration of a possible clinical case in the study of clinical disciplines in senior years allows medical students to master a sufficient level of professional competencies in the study of fundamental disciplines, including «Medical and Biological Physics».

The case designed to study the course of medical and biological physics, given its specifics, may contain the following types of questions of a professionally oriented nature: 1) manifestations of physical phenomena and processes in the human body and the possibility of their study; 2) basic methods of determining physical quantities in medical practice; 3) principles of functioning of devices in diagnostic and medical practice; 4) the consequences of the interaction of physical factors with biological environments; 5) prevention of adverse effects of external physical factors on the human body and counteraction to occupational diseases.

Problem-based learning in general and the case method in particular is a good tactical pedagogical tool that plays a strategic role in the training of a competent specialist and is adequately perceived in the student environment. Students are willing to work on cases to become more effective in the role of a doctor, which in the future allows them to participate in conferences by presenting scientific reviews. Such techniques also help students to move easily from the techniques used in secondary education to professional oriented teaching methods.

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