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# **SCIENTIFIC RESEARCH: INTEGRATION OF SCIENCE AND PRACTICE FOR EFFECTIVE DEVELOPMENT**

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## MEDICAL EDUCATION: OBESITY- THE RISK OF VARIOUS DISEASES

**Khlananova Lydia**

PhD, Associate Professor of Histology  
and Embryology Department,  
Bogomolets National Medical University, Kyiv, Ukraine

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Doctor of Medical Sciences,  
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Bogomolets National Medical University, Kyiv, Ukraine

**Grabovyi Oleksandr**

Doctor of Medical Sciences,  
Professor of Histology and Embryology,  
Bogomolets National Medical University, Kyiv, Ukraine

**Background.** Overweight and obesity are defined as abnormal or excessive fat accumulation that presents a risk to health. A body mass index (BMI) over 25 is considered overweight, and over 30 is obese. In 2019, an estimated 5 million noncommunicable disease (NCD) deaths were caused by higher-than-optimal BMI; er-than-optimal BMI; er-than-optimal BMI (World Health Organization). Psychological aspects are also important: people who are struggling with obesity may experience stress, depression, and low self-esteem due to social pressure. Rates of overweight and obesity continue to grow in adults and children. From 1990 to 2022, the percentage of children. These effects highlight the importance of a healthy lifestyle, including a balanced diet and regular exercise, to prevent the development of obesity and reduce the risk of related problems. Obesity increases the risk of various diseases, such as heart disease, type 2 diabetes, obstructive sleep apnea syndrome, some types of cancer, osteoarthritis, and asthma. The risk of serious diseases, such as type 2 diabetes, cardiovascular disease, high blood pressure, respiratory problems, and musculoskeletal problems (Anna Kallasidou and et.al, 2025).

**Objective.** To stimulate and support the personal development of students, increase their responsibility for the quality their fundamental knowledge, develop and strengthen interest in future medical activity.

**Results.** At the forefront of modern approaches to studying at higher medical school should be the practical component of the acquired knowledge on the basis of innovative teaching methods of basic medical and biological disciplines, as well as a high level of interest and involvement of students in independent work and motivation of students to their further continuous development.

Articles devoted to the problems of medical education are given a place on their pages by the most influential medical journals in the world. Existing assessments of clinical learning are structured and systematized, they are based on a variety of qualitative and quantitative approaches, examinations and simulation models. Problems of teaching morphology and physiology, which takes place in the junior courses of medical universities and which form an important basis for medicine. Need of provides the necessity of implementing new methods for rationalizing and optimizing the teacher process for overcoming the emotional management, associated with information. Our pedagogical experience (2015-2024 years) and literature data indicate that in the study of basic medical and biological sciences, it is useful to introduce the principle of problem-based learning related to theory and practice. Already in the initial years, students should be convinced that the discipline creates a theoretical basis for the formation of a future medical specialist, which will allow them to understand the mechanisms of action of drugs on various target cells, analyze the individual reactivity of the body, justify optimal diagnosis, link clinical symptoms and syndromes with the morphological substrate, etc. It should be emphasized that in the process of our research, psychological and pedagogical efforts were directed to the process of mental activity of the student in order to contribute not only to the assimilation of knowledge, but also to the education of independent, productive, creative thinking. Regardless of the level of students' abilities, teaching the fundamental medical and biological discipline requires the need to focus students' attention on the assimilation of the patterns of structural and functional relationships, age, adaptive and regenerative capabilities of tissues and organs for the formation of their long-term memory. Teaching histology in practical classes at the medical university involves the use of new pedagogical approaches in the problematic self-understanding of students in gaining the ability to interpret the diagnostic criteria of structures, both normal and under conditions of changes in functional status in the process of adaptation, compensation and pathological changes in human tissues and organs. It was the characteristics of the discipline (requiring the justification of cause-and-effect relationships; drawings, diagrams, micro- and ultra-micrographs, etc. are used; a high level of interactivity) and the characteristics of students (they believe that learning and memorization are the same thing; they cannot or only make attempts to generalize and are prone to excessive "decomposition" of the information received) had a greater impact on the creation of difficulties in the study of histology than any other factors. A factor influencing the educational process and being different has also been identified. It is important to note that in the conditions of modern Ukraine - martial law - it is this group of factors, including psychological, social and material, that significantly affect the educational process. The offer several solutions to overcome the problems in teaching an important basic discipline of medical and biological profile - histology: in order to meaningfully substantiate causal processes and it is possible to choose an appropriate model for students to facilitate their understanding. It is advisable to provide students with the opportunity to apply practically the principles of basic knowledge in physics, chemistry, biology and anatomy. Differentiated approach inculcated problem-oriented, self-study review of psychological characteristics of

students can improve students' knowledge and practical skills to help in adapting the education system to improve the formation of funds for clinical thought becomes personal, enhancing communication capabilities. At the center of such training is creativity, analysis and synthesis of knowledge. Emphasis is on interactive skills in the team: the formation of flexibility, adaptability in solving difficult situations. In this way, students gain the ability to interpret the properties of structures as normal, as well as under conditions of changes in functional status. On the other hand, such modernization can be based on the domestic and international experience of actively involving students to study specific morphological topics and elements of problem - oriented learning.

**Conclusion.** Active independent work of students in combination with the problematic presentation of the content of the educational material develops the cognitive activity of students, promotes the formation of the ability to reason evidence, mastery of logical techniques, conclusions. improvement of mental operations, development of internal cognitive need to justify any judgments and self-esteem.