

# Pedagogical Approaches to Teaching Healthy Lifestyle to Medical University Students

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## ABSTRACT

The article reveals the importance of pedagogical aspects reflected in a physician’s education and practical activities. Being involved in a learning process, medical treatment-and-diagnostics activities and morality-guided outreach work, a physician should rely on advanced educational technologies. The author analyses some practice-oriented and person-cantered techniques for training medical specialists involving a competence-based approach. The following research methods have been employed, while working on this article: studying and analysing the psychology- and pedagogy-related literature, performing synthesis, simulation, comparison and generalization. The conclusion is made that the global mission of the higher medical education is the substantiation of modern innovative teaching techniques elaborated with the involvement of a personality-oriented approach. These techniques are most effective in promoting healthy lifestyle.

*Keywords: higher medical education, active teaching methods, methodical approaches, spiritual and moral culture of the physician, healthy lifestyle*

## I. INTRODUCTION

Since the late 20th century, two global psychological and pedagogical ideas have been exerting a powerful influence on medical education in general and on training profile specialists in particular. The first one is associated with possibility of managing a physician’s training while developing this physician’s medical judgment and technological culture. The second idea relies on humanistic paradigm, humanization of medical education and the concept of human integrity underestimated by the natural-science doctrine.

Two dominant ideas have drawn attention to the need to harmonize the development of clinical thought, cognitive abilities, emotional and value-meaning spheres of personality, as well as to create medical and pedagogical conditions for professional growth and the development of a physician’s spiritual and moral culture. Thus, a practice-oriented approach comes into being that has been elaborated and introduced into the educational process by the Pedagogy and Psychology Department of A. I. Yevdokimov Moscow State University of Medicine and Dentistry.

## II. PECULIARITIES OF PEDAGOGICAL APPROACHES TO AN EDUCATIONAL PROCESS AT A MEDICAL SCHOOL

Practice-oriented pedagogy first came to prominence as part of the education democratization movement in the 1920s in the USA owing to the pedagogical activity carried out by the originator of the philosophy of pragmatism John Dewey and his followers, through the project-based method, active teaching methods and “doing.”

In the mid-1950s a humanistic paradigm was popular in American psychology and medicine that not only changed the philosophy of approaching a person’s education, but also became a genuinely social phenomenon in history. Based on J. Dewey’s philosophy and inspired by phenomenology and existentialism, this humanistic paradigm completely renounced the limitations that are characteristic of traditional ways of inculcating knowledge, abilities and skills. A disengaged “objectivistic” standpoint taken by an expert in the sphere of the so-called “helping professions” (physician, psychologist, psychotherapist, teacher, social worker) was opposed to a new system of values. [1] An emotional involvement, a true commitment to the cause and following the code of professional and human ethics were required from a

specialist. The works of A. Maslow, C. Rogers, J. Freiberg, T. Gordon and other authors present the principles and underpinnings of the education, medicine and psychology that take cognizance of “all things human in a human being.”

When the reforms of higher education had been introduced in the developed capitalist countries (the United States, Great Britain, France, Germany and Japan) in the late 1960s and in the early 1970s, a practice-oriented aspect gradually gained prominence - like “echo” of the aforementioned democratization movement. And in the beginning of the 21st century it found expression in practice of a competence-based approach and in state higher education standards, and specifically those of medical education.

Today, the principles of humanism and practice- and person-centered approaches are more and more adhered to in national pedagogy and medicine. These principles are much attuned to Russian mentality brought up on the notions of compassion and mercy. To be fair, it should be pointed out that these statements were made in the late 19th and early 20th century by major Russian thinkers such as L. N. Tolstoy, N. A. Berdyaev, V. V. Zenkovsky and others.

Metropolitan Anthony of Sourozh, the experienced physician and teacher, wrote that “medicine as a sector of human activity occupies a very special place precisely because science is combined with a value-based aspect there that has nothing in common with science. A physician’s approach is grounded on compassion; and compassion in its turn is unscientific by nature. This is a humane approach that can be transferred to any sector of people’s activity, but outside compassion, without compassion there is no medicine at all.” [2]

Modern medical education is oriented towards active efforts to be made by the student himself, when solving professional (real or simulated) tasks. In accordance with this approach, theoretical knowledge is acquired simultaneously with practical absorption of professional norms and ways of working, and not separately or in advance. This theory provides for practicing the specialist training based on mastering specific professional functions (diagnostics, medical treatment, preventive care, rehabilitation) and conceptual knowledge and skills (vocational thinking, communication techniques, manual clinical skills). Besides, the conceptual knowledge becomes “the security,” the condition and the guarantee of correct fulfilment of practical actions.

To implement this approach, various psychological models of activity are being designed, in particular those for infectious diseases specialists. The trainees gain understanding of how to perform their activities correctly: in what way, in which order and why certain

manipulations are to be carried out. The structure of activity provides an excellent demonstration of all things: what follows what; with the help of what and what for it is done. On this ground, a detailed frame of reference for the perspective action is being built, including the specific benchmarks for training new kind of activity. Such benchmarks are:

- sequence of action stages (what follows what?);
- used instruments and means (with the help of what?);
- criteria and methods for self-review (what for is it done?);
- evaluation of completed actions (what result is achieved?);

Clear description of orientation basis of activity (OBA) ensures the correct execution of diagnostics-and-treatment procedures, as well as rehabilitation-and-prevention ones. And the system of training tasks is a kind of simulator due to which a future specialist or a practicing physician learns to perform specific actions (types of activity).

When gaining command of new actions (and not just new knowledge), it is important to learn while being present in a practical reality or using adequate simulations. Therefore, the system of training tasks should encompass all possible options appearing in the course of a physician’s work and contain models of diverse practical situations that this physician may ever face. Then, the trainee acquires an ability to act in all circumstances (including emergencies and rare cases). This is precisely the way to explain the need to recourse to the psychological simulation of activities.

Professional competences, skills and knowledge do not go from teacher to the students in a “from-hand-to-hand” manner, but are formed in a self-guided way and under the supervision of the teacher. The main peculiarity of such training consists in the fact that a student acts (solves tasks) only supported by orientation means i.e. OBA schemes. The mission of a teacher is to clearly organize and adequately manage the students’ individual work: to set tasks, to make adjustments while students are working on their tasks, to keep records and evaluate the results of the trainees’ efforts on the basis of OBA schemes. To this end, the teacher deliberately refuses from his usual position “to transmit knowledge.”

The competence-based approach has reinforced and brought together a technological component of training and a person-centered approach. Now it is inappropriate to ignore the professional competences of a teaching physician, as well as medical and pedagogical conditions, in which these competences have been formed.

According to our reckoning, the trends that may become regularities are the following:

- Results framework as a common strategy for organization of an educational process that involves both students and teachers;
- Practical orientation of training medical students and teaching physicians with accounting for and evaluation of training results as being the basis of professional competence, theoretical and practical preparedness and the responsibility taken when performing professional activity;
- Active and interactive methods of instruction and education;
- Enhancement of integration principles in training medical students and teaching physicians for planned development of vocational thinking starting from preclinical stage to clinical stage and individual work;
- Usage of value-meaning, educational and socializing components of training medical specialists as part of a comprehensive educational process, which includes special requirements for compliance with Federal State

Education Standards, training programmes, methodological instructions for practical sessions, the specific features of simulating and solving of the tasks arising in the course of the training.

Identification of the aforesaid regularities and trends is associated with the global mission of pedagogy in the area of higher medical education i.e. substantiation of modern innovative pedagogical systems. The key points are related to asserting the humanistic paradigm of education and are associated with the need to promote the students' and trainees' understanding of the specifics of pedagogical principles of traditional, operational activity-based and person-cantered models of instruction and education.

The term "active teaching methods" is now firmly entrenched in medical education practice. In its time, it appeared to be the reflection of the overall trend for pedagogy to shift away from traditional dogmatic teaching methods where a teacher acted as a knowledge transmitter and the employed methods facilitated the students' perception of information. In medical schools, there are two types of active teaching methods: simulation and non-simulation methods (see "Table I").

TABLE I. ACTIVE METHODS FOR TRAINING MEDICAL SPECIALISTS

| Non-simulation methods   | Simulation methods  |
|--|---|
| <ul style="list-style-type: none"> <li>◆ Talking</li> <li>◆ Teacher's briefing</li> <li>Reflexive polylogue<br/>(work in micro-groups, discussions, plenary sessions)</li> <li>◆ Brainstorming</li> <li>◆ Synectics</li> <li>◆ Workshop</li> <li>◆ Group focused interview (focus-group method)</li> </ul> | <ul style="list-style-type: none"> <li>◆ Solving tasks</li> <li>◆ Analysing specific situations</li> <li>Analysing successive measures (for example, stages of diagnostics, medical treatment, rehabilitation, etc.)</li> <li>◆ Professional (training) simulation games<br/>(with strict scenarios and role playing)</li> <li>◆ Organizational activity simulation game</li> </ul> |

The development of ideas of the practice-oriented and person-cantered pedagogy is in progress at the Pedagogical Education faculty (PEF) and can be seen in teaching such disciplines as "Psychology and Pedagogy" and "Healthy Lifestyle" to the students of A. I. Yevdokimov Moscow State University of Medicine and Dentistry. [3], [4], [5] The teachers of the university proceed from the assumption that the competence-based approach, practice-oriented and person-cantered techniques for training medical specialists can be treated as interrelated processes. The ideas of the competence-based approach dictate the need for designing practice-oriented and person-cantered training models, by ways of which special medical and pedagogical conditions are created in order to form the diverse professional competences. The special place among them is taken by the spiritual and moral competence and thus a physician's personal

culture and ethics-driven outreach activities. [6], [7], [8], [9], [10]

Each student works on a particular pedagogical project and defends it. Exemplifying scenarios for sessions with groups of trainees come from everyday life and are often related to various infectious diseases. Below, for instance, is a scenario for a session with parents of primary school children on the topic "Prevention of your children's possible viral respiratory infections and food borne intoxications".

Firstly, the objective of the session is stated – to provide parents with information about the possibility of preventive measures in relation to viral respiratory infections and food borne intoxications and thus to upkeep the continuity in the process of children's schooling.

Then, the tasks are set:

- to analyse the prevalence of viral respiratory infections and food borne intoxications among the students of this primary school;
- to give an overview of “the social harm” of such diseases;
- to prepare the participant to take preventive measures.

Furthermore, the venue and the time for this session are specified: the school’s assembly hall; evening hours, probably, as a first part of the general parents’ meeting at the beginning of a school year (before the autumn term). Then, characteristics of the audience are given: people of different ages and professions, but approximately the same social status (due to present school stratification). A psychological and pedagogical aspect of this audience can be business-like air and hastiness, but alongside that their concern about their children’s health.

Once this is done, methods and forms of the material delivery are identified: lecture (frontal lecturing to the entire audience), possibility of deferred consultation by phone or at the school paediatrician’s office (individual form of work). The basic requirements to a lecture are its informative value and descriptiveness. Method – verbal one.

Outline plan of a session and timing are as follows:

- Presentation of details about the rate of viral respiratory infections and food borne intoxications in this school – 5 minutes.
- Recollection of the key points concerning the essence of these diseases and risks to the children’s health, education and development that those diseases entail – 10 minutes.
- Coverage of prevention rules: “If there is a sick person in the house,” “Vaccination principles,” “Strengthening the immunity,” “Hardening and maintaining personal hygiene,” “Storage and use of food products” – 25 minutes.
- Establishing contacts with the audience for follow-up consultations and opportunities for feedback – 3 minutes.

The methodological support of the sessions includes corresponding visual aids, handouts with schedules for vaccination and contact details. As concerns the techniques and methods for assessing the effectiveness of the completed session, main indicator showing the assimilation of the communicated information is the quantity and quality of calls for consultation or help. As for indirect result, it is the lesser incidence of disease in the children of this school.

So, medical-and-pedagogical conditions are simulated and used based on the psychological-and-pedagogical principles of education and upbringing that are repeatedly verified through practical consideration, while identifying the most successful options. The importance of the proposed psychological-and-pedagogical competence model was proven by existence itself. Our ideas are being successfully implemented in the works of members of other university’s departments, in particular that of infectious diseases and epidemiology.

It is gratifying to note that, under the supervision of the professor N. D. Yushchuk, the Doctor of Medicine and member of the Russian Academy of Sciences, there takes place a re-orientation in training students towards the person-cantered approach involving the assessment of general-cultural and vocational competences mastered by the graduates of the medical university based on qualitatively-new testing and assessment materials. The introduction of the third-generation Federal State Education Standard requires the revision of model working programmes. The main trends in educational technologies are:

- Follow-up development of the continuing professional education system;
- A greater use of innovative educational technologies, practice-oriented and person-cantered training forms with the purpose of boosting the students’ creative analytical thinking;
- Establishment of online information-driven educational environment;
- Usage of a unified database of testing, assessment and grading materials. [11]

### III. CONCLUSION

The described pedagogical aspects of education and activity of both future specialists and practicing physicians are obviously important. When studying, physicians should rely on advanced educational technologies, i.e. practice-oriented and person-cantered pedagogy. The global mission of the higher medical education is the substantiation of modern innovative teaching techniques based on a personality-oriented approach. The educational technologies aim for information sharing and absorption of the corresponding knowledge, abilities and skills and provide a framework for designing the training programmes for various targets groups of population with the purpose of shaping a health-saving motivation and health-saving behaviour. The pedagogical strategies providing people with necessary data, forming positive attitudes in public opinion, creating base for

understanding current problems and promoting the ideas for health and healthy lifestyle are gaining special meaning.

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