

**SCTMG 2020****International Scientific Conference «Social and Cultural Transformations in the  
Context of Modern Globalism»****DEVELOPMENT OF THE READINESS OF MEDICAL  
POSTGRADUATE STUDENTS FOR TEACHING PROFESSION**

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***Abstract***

The paper justifies the need to prepare top-qualification personnel of medical universities for teaching profession. On the basis of the analysis of the activity of a university teacher and the tasks of staff training within the system of higher medical education, the paper reveals the peculiarities of teaching profession at a medical university, which include the activities aimed at development of students' attitude to health as to the value that determines the quality of life of an individual and society as a whole, as well as their preparation for the implementation of personal health saving strategies and health saving strategies for patients and their families in the course of their professional activities; combination of active work on the formation of competence-based outcomes of educational programs with educational strategies aimed at professional education of medical students and formation of professional and personal qualities of a future doctor; inclusion of patients in the pedagogical process as active objects of research and additional subjects of the educational process in the conditions of a medical university. The authors defined and justified the substantive characteristics of the readiness of postgraduate medical students for teaching profession caused by the specifics of the teacher's activities in the conditions of higher medical school. The results of the pilot work confirmed the efficiency of chosen forms, methods and means of working with postgraduate students summarized in the form of a model of postgraduate preparation for teaching profession at a medical university.

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**Keywords:** Postgraduate study, teaching, medical university.



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## 1. Introduction

The education of top-qualification personnel in the Russian Federation in general and top-qualification medical personnel, in particular, has undergone a number of significant changes since the federal law *On Education in the Russian Federation* (No. 273-FZ of 29.12.2012) has been entered into legal force. The classification of educational programs for medical residents and postgraduate students as the programs of the third level of higher education and the development of federal state educational standards of this level led to a new approach to the organization of the educational process of postgraduate studies and mainstreamed a number of issues. According to federal state educational standards of higher education, the training of top-qualification personnel within postgraduate studies is focused on the readiness of postgraduate students for research and teaching activities based on higher education programs. However, the specifics of teaching activities in the conditions of higher medical school are such that a teacher ensures not only the above-mentioned activities, but also realizes himself as a medical practitioner. A young teacher of the medical university, who does not have basic pedagogical education, experiences some difficulties and needs assistance from more experienced teachers in the conditions of the real educational process at a higher school. That is why many residents planning to combine a medical career with the career of a university teacher, enter postgraduate studies after completing their residency. Thus, the formation of the readiness of postgraduate students of medical university for teaching activities is not only a mandatory requirement of federal state educational standards of the postgraduate level, but also an objective necessity dictated by the needs of the system of higher medical education.

## 2. Problem Statement

At present, the training of postgraduate students is the subject of close attention of the scientific community, which discusses problems of training of top-qualification personnel in the graduate school of a new type; searches for a new content of postgraduate programs that optimally combines educational and research components; develops variable models of postgraduate training based on competency approach, etc. Currently, despite the attention of the scientific community to the professional training of adults (Langa et al., 2019), there are not many studies on the issues of postgraduate education, and there is practically no training of top-qualification personnel at the medical university. The scientists pay much attention to the study of motivation for pedagogical activity (Dörnyei & Ushioda, 2001; Herman, 2019; Sinclair, 2008; Watt et al., 2012), which is significant for our study. This is caused by the fact that the motivation that determines active actions of a postgraduate student in the process of his preparation is at the heart of the readiness of a medical postgraduate student for teaching profession. The training of postgraduate students of medical universities holds a separate place in the problematic field of top-qualification personnel training in Russian pedagogical science (Dremova, Stepashov, & Konischeva, 2017), which is caused, on the one hand, by the organizational peculiarities of postgraduate training, and on the other hand, by the socially significant nature of professional activity of a future graduate of a medical university. The activity of a teacher of the medical university is quite complex, and in this regard it is relevant to find special approaches to the problems related to the formation of readiness of

postgraduate medical students for teaching activity in conditions of new requirements for organization of training of top-qualification personnel (Bjerkaker, 2016).

### **3. Research Questions**

The main subject of the study was the process of preparing postgraduate students of the medical university for teaching activities. The developed model of preparation of postgraduate students of medical university for teaching activity includes four blocks. The methodological block is a conceptual superstructure containing basic approaches to the training of top-qualification medical personnel and thus based principles of selecting the content of postgraduate training for teaching activities. The theoretical block, represented by the main and optional disciplines, has a prolonged character compared to the models of other medical universities, which allows a graduate student building an individual trajectory of preparation for teaching activities. Practical and reflexive-evaluation blocks of the model are interdependent and are implemented in parallel during pedagogical practice of postgraduate students of the medical university, which takes place in the format of immersion and involves active development of skills corresponding to components of readiness of postgraduate medical students for teaching activity. The features of the reflexive-evaluation block include the combination of self-assessment procedures, peer assessment and expert evaluation of the results of practical teaching activities of a postgraduate student of the medical university, which allows planning and adjusting an individual trajectory of professional-pedagogical self-improvement (Shatravkina, 2018).

### **4. Purpose of the Study**

The purpose of the study was to prepare postgraduate students of the medical university for teaching profession. For this purpose, the existing problems of the system of training of top-qualification personnel in the context of the tasks of the higher medical school were analyzed. The results of the analysis allowed highlighting the peculiarities of teaching activity at the medical university. In the process of considering the concept of “readiness for teaching activities”, its content was revealed through the characteristic of training of postgraduate students of the medical university, which allowed developing a model of preparation of postgraduate students of the medical university for teaching profession.

### **5. Research Methods**

In order to achieve the purpose of the study, the following methods of research were used: systematic analysis of the experience of training top-qualification personnel; theoretical analysis of the main categories of research; modeling; questionnaire, interpretation analysis of written works, expert assessment, statistical and qualitative analysis of the experimental results.

### **6. Findings**

Currently, the system of medical education is in a state of active reform. The guidelines for the development of higher medical education are determined by strategic documents of the Russian Ministry

of Health, as well as by the need to comply with the tasks formulated in the normative documents regulating the Russian educational system. In the context of the tasks of the higher medical school, the system of training of top-qualification personnel revealed trends and promising directions of development, including the development of continuing postgraduate educational programs for top-qualification personnel of clinical and non-clinical specialties, which organically combine preparation for research and teaching activities; creation of programs for the development and support of informed professional motivation of young people entering the third level of education; the need to make active use of the potential of scientific schools operating at medical universities; development of algorithms to forecast labor market needs in pedagogical and scientific personnel of the highest medical qualification and mechanisms for securing postgraduate students at universities and scientific organizations; search for models, forms, means and methods of educational work with postgraduate students, which will allow, on the one hand, forming the readiness for teaching activity, and on the other hand, implementing the tasks of scientific and research work as much as possible.

Within this study, teaching activities are considered in terms of broad understanding, on the basis of which a number of specific features are identified, which are not typical for the classical university and have a bi-directional nature. 1. Currently, the educational process of the higher medical school is characterized by the tendency towards a bi-directional use of spoken foreign language. For the higher medical school, the main difference from the above general trend is the compulsory traditional use of non-spoken Italic language (Latin) in the educational process as a unified means of professional communication. The teacher of the higher medical school uses Latin both as a tool of his own professional activity and as a means of communicating with colleagues and students in the educational process of the medical university. 2. Active work on the formation of the students' attitude towards health as a value that determines the quality of life of a person and the society as a whole, as well as preparation of students for the implementation of strategies of personal health-saving and the health-saving strategies of patients and their families in the process of professional activity. 3. The need to prepare medical students to implement the strategy of personal and professional self-development in the context of tasks of the modern health care system. For a teacher of a medical university, located at the intersection of two spheres of professional activity – education and medicine, it is necessary to combine active work on the formation of competent results of development of educational programs with the implementation of educational strategies aimed at professional education of students of the medical university and formation of professional and personal qualities of a future doctor. 4. Specific conditions of pedagogical activity (inclusion in the pedagogical process of a patient as an active object of medical examination). On the one hand, a patient serves the demonstration object of the study, the work with which allows immersing in the situation of real professional activity. On the other hand, depending on the individual characteristics of a patient, the nature of his illness, his personal readiness or lack of readiness to be included into the process of working with medical students, the number of situations of professional activity is increased, the resolution of which includes both a teacher and a student.

In the context of the normative requirements for higher qualification training programs, taking into account the current state of higher medical education in the Russian Federation, the need to form the readiness of postgraduate students of the medical university for teaching activities seems quite relevant,

which is revealed as an integrated professional characteristic represented by psycho-pedagogical, organizational-methodological, scientific-educational, value-educational and activity-creative components. The basis of the psycho-pedagogical component is knowledge, skills and abilities of a postgraduate student of the medical university in the field of pedagogy and psychology used in the process of curricula design, selection of competency-oriented forms, means and methods of working with students, preparation of practice-oriented medical case studies, etc. The organizational and methodological component consists in the ability of a postgraduate student of the medical university to independently plan and achieve the goals of educational classes with students. It is the most active in developing plans-projects of lectures, practical and laboratory classes, direct interaction with students, solution of pedagogical situations in the educational process, etc.; scientific and educational component is evident through the use of materials of research work in the educational process with students, as well as through their inclusion in research work for solving educational problems. The value and educational component of readiness includes knowledge, skills and abilities of a postgraduate student of the medical university determined by the scientific fields of professional ethics and pedagogical axiology. It is evident in the process of real pedagogical interaction in the system of “teacher (graduate student) – a student – a patient” as pedagogically and ethically expedient behavior of a teacher with students and a patient, as well as in the course of the choice and solution of modeling pedagogical situations aimed at ensuring the educational impact on medical students. The activity and creative component is a complex of knowledge, skills and abilities of a postgraduate student of the medical university in the field of pedagogical technologies, forms, methods and means of professional training and education. It is manifested directly in the process of pedagogical interaction with students in the form of creative use of appropriate technologies, forms, tools and methods of working with students, as well as the need to search and use new formats of working with future doctors.

The study presents the results of experimental work on testing the model of preparation of postgraduate students for teaching activities carried out on the basis of Rostov State Medical University of the Ministry of Health of Russia since 2014, in which 190 postgraduate students of full-time and part-time forms of education were involved throughout the entire period of study. At the initial stage of work, postgraduate students performed self-assessment of their readiness for teaching activities and fulfilled creative tasks in the form of an essay on the topic “I am a teacher of a medical university”. The analysis of the essays presented by postgraduate students showed that at the initial stage of the experiment more than 70% of respondents consider themselves sufficiently ready to perform the functions of a teacher, without seeing any particular obstacles for this, but do not fully understand the degree of diversity of the teacher’s activities. The theoretical block implements basic and optional disciplines aimed at forming the readiness of postgraduate students of the medical university for teaching activities. The basic disciplines block includes “Higher School Pedagogy and Psychology” and “Higher School Teaching Theory and Methodology” (implemented during the first year of study). The optional courses are represented by such disciplines as “Professional Culture and Ethics of the University Teacher” and “Tutoring in the System of Higher Education”. The gap between basic and optional disciplines allows prolonging the preparation for teaching activities for almost the whole period of the postgraduate program, and the content of optional courses is a significant addition to the information presented within the basic disciplines. The work

carried out during the theoretical block included the preparation for the active phase of experimental work, which took place during the implementation of the practical block of the model. Before the beginning of the practice, postgraduate students of the experimental group were offered differentiated tasks considering the presence/absence of experience of professional practice, as well as one general task aimed at forming all components of the readiness for teaching activities, namely, the development of an educational and research project “In search of individual educational technology”. Within this project it was intended that postgraduate students test all educational technologies that were studied in the theoretical block, draw conclusions on advantages and disadvantages of technology in the context of higher medical education tasks, propose possible options for combining educational technologies in the educational process, summarize the material developed in the course of practice in the form of a scientific text (report or article). During the practice, the postgraduate students twice underwent the procedure of self-evaluation and expert evaluation by the teacher-curator of the practice (at the beginning and at the end of practice), on the basis of which conclusions were drawn on the readiness of postgraduate students of the medical university for teaching profession within the framework of indicators of its five main components (psycho-pedagogical, organizational-methodological, scientific-educational, value-educational and activity-creative). Besides, during the implementation of pedagogical practice postgraduate students attended classes of each other and underwent the procedure of peer evaluation. Observing each other in classes, the postgraduate students of the experimental group concluded that those with practical experience were more successful in developing competence-based tasks and medical cases, as well as were creative in using educational videos and simulators as a didactic tool. In addition, when conducting classes in the conditions of the polyclinic department, they can better organize interaction within the triple link “teacher – student – patient”. There is a positive effect of mutual education for postgraduate students who have entered the third level of education after specialization without experience of practical professional activity. They made adjustments to their plans for professional and pedagogical improvement not only in terms of teaching but also in the context of medical practice. At the final stage of pedagogical practice, the experimental group showed a steady increase in indicators for all components of readiness for teaching activities, while postgraduate students of the control group showed a slight increase in the level of readiness for organizational, methodological and psycho-pedagogical components. The correlation of the results of self-assessment and expert assessments in the control and experimental groups at the initial and final stages of practice were different. At the initial stage, the graduate students of the control group showed an overestimation of self-esteem, the graduate students of the experimental group as a whole assessed themselves adequately, in some cases showing a tendency to underestimate the indicators due to high critical self-assessment. At the end of the practice in the experimental group, the results of the teacher’s self-assessment and expert assessment were correlated with each other, slightly different in percentage indicators and showing positive dynamics of the formation of readiness for teaching activities. Among the postgraduate students of the control group the self-assessment indicators decreased and approached the expert’s assessment. In fact, the control group at the end of the pedagogical practice showed a slight increase in the level of readiness for organizational, methodological and psychological-pedagogical components, while the experimental group showed a steady increase in the indicators for all components of readiness for teaching activities. In general, the

results of the experimental group confirmed the efficiency of selected forms, methods and means of working with postgraduate students, summarized in the form of a model of preparation of postgraduate students of the medical university for teaching activities.

## 7. Conclusion

The study showed that the need to comply with the requirement of educational standards, on the one hand, and to solve the pressing tasks of training for the health care system of the Russian Federation, taking into account the active reform of the medical education system, makes relevant the identification of a number of trends defining the vectors of development of the system of training of medical top-qualification personnel and acting as its leading strategic guidelines. The study found that teaching activity in the conditions of a medical university has a number of bidirectional features, which are not characteristic of the system of classical higher education, which determines the need to consider it in a broad sense, in the context of which psycho-pedagogical, organizational-methodological, scientific-educational, value-educational and activity-creative components of the readiness of a postgraduate student of a medical university for this type of activity are determined. The analysis of the existing models of training of postgraduate students of medical university for teaching activities revealed the tendency to theorize this type of training and the orientation towards the formation of skills and abilities of postgraduate students aimed at effective organization of the educational process in accordance with FSES requirements without taking into account the difference in basic training of graduates having equal rights when entering the postgraduate studies. The developed and tested model of preparation of postgraduate students of medical university for teaching activity that is presented by methodological, theoretical, practical and reflexive-evaluation blocks is aimed at overcoming the above-mentioned dissonance.

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