

## REVIEW

by Prof. Galina Stamova Tchaneva, PhD

Faculty of Public Health «Prof. Dr. Tsekomir Vodenicharov, dsc», Medical  
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Appointed as a member of the Scientific Jury by Order No. R-109-  
22/17.01.2023 of the Rector of the Medical University

«Prof. Dr. Paraskev Stoyanov» – Varna

Regarding: Procedure for acquiring the educational and scientific degree  
"Doctor" of Pavlina Penkova Teneva - a doctoral student in an independent  
form of study

on the subject:

"Practical training of medical laboratory workers for the formation of  
professional skills and competencies"

in the field of higher education 7. Healthcare and sports, professional direction  
7.4. Public Health in Doctoral Program Health Care Management.

The dissertation work developed by Pavlina Teneva is aimed at researching the problems in the training of medical laboratory technicians in the country. The implemented changes in the education of medical laboratory workers are dictated by the changes in the field of higher education on the one hand and on the other hand - the development of clinical laboratory research in accordance with the progress of medical science and technologies that are constantly entering healthcare. The qualification of medical laboratory technicians is essential for the implementation of quality medical activities in the prevention, diagnosis and treatment of patients. Improving the professional qualities and competencies of students is a continuous process that enables their successful professional realization. The quality of education of health care students is an actual problem that needs to be studied more and more in-depth in order to achieve the goals of education and the implemented structural changes in the country.

The dissertation is structured in 122 pages and includes three chapters: first chapter – Theoretical foundations of the researched problem; second chapter – Methodology and organization of scientific research; third chapter - own study.

The concepts of "competencies" and "competence" are analyzed in the "Theoretical foundations of the researched problem". A characteristic of the specialty "medical laboratory assistant" is presented - normative documents, organization of the educational process and educational forms for practical training. The doctoral student emphasizes the role of the teacher in the process of formation of professional competences. Modern models of training in a Medical College are described in terms of building professional skills, which together with attitudes and attitudes shape professional behavior expressed in cognitive, motor, social and emotional aspects. P.Teneva presents in depth the elements of the educational process at the Medical College of Thrace University - educational objectives, educational content, educational technology, assessment.

The goal and tasks are formulated specifically and clearly. They are aimed at researching the formed professional skills and competencies of the students of the "medical laboratory assistant" specialty with a view to optimizing their practical training. Three hypotheses are presented that fully support the topic chosen by the doctoral student.

The methods used are: documentary, sociological and statistical - variation, frequency and graphic analysis. The study is structured in 4 stages: a/ study of the actuality of the problem; toolkit development; preparation of the literature review; b/actual research - surveying the students; c/ surveying medical laboratory workers from the health care system; d/ processing, analysis and description of the received data. The respondents included in the study are a total of 184 - divided into three groups: first group - students from the "medical laboratory technician" specialty from Medical College Stara Zagora and Medical College Varna; second group - medical laboratory workers from medical institutions on the territory of the city of Stara Zagora, the city of Sliven, the city of Yambol, the city of Haskovo and the city of Kardjali; third group - laboratory doctors and senior medical laboratory technicians.

The results of the conducted research are presented graphically and analytically in the third chapter. The dissertation contains 28 figures, 17 tables and 5 appendices. The literature used includes 158 sources, of which 70 are in Cyrillic and 88 are in Latin.

The obtained results are analyzed and synthetically presented in the well-formulated conclusions. A scientific style and language was used to reveal the problems in the practical training and professional realization of the medical laboratory assistants. According to the presented data, more than 90% of the



students studying in the "medical laboratory technician" specialty are women. The students from the two Medical Colleges from the city of Stara Zagora and from the city of Varna are "very highly" satisfied with the practical training - 82.46%. Both students and practicing medical laboratory technicians attach the greatest importance to "Practical training in a real work environment" to build professional competencies.

The contributions of the dissertation can be defined in the following directions:

- An in-depth analysis of the training in the specialty "medical laboratory technician" was made to establish the level of knowledge, skills and competences, as well as the need to update the training in accordance with the development of modern healthcare;
- The opinion of students and practicing medical laboratory technicians about the level of their professional competence during their training in the conditions of a Medical College was studied;
- The opinion of experts in the field of Clinical Laboratory was studied about the level of training of medical laboratory workers and their professional behavior for independent work;
- Introduction of a teaching aid "Rules for taking biological material for clinical-laboratory research" through which an increase in professional skills and competences of the students of the specialty "medical laboratory assistant" will be achieved.
- A proposal was made for the development of "Clinical laboratory constellations in patients with Sars-Cov-2", and their inclusion in the Clinical Laboratory and Clinical Practice programs of the specialty "medical laboratory technician";
- An optional course "Sources of errors in the stages of the laboratory process" has been proposed for students of the "medical laboratory technician" specialty, which will increase the quality of education.
- Updating the curricula of the students of the "medical laboratory assistant" specialty, according to the new models and technologies in laboratory practice, by holding regular meetings and seminars between laboratory doctors and senior medical laboratory assistants with the teachers of the medical colleges.

Pavlina Teneva graduated as a "medical laboratory technician" at the Medical College - Sliven at the Trakia University - Stara Zagora in 2000. Later, she graduated from the Bachelor's program in "Social Activities" at the University

of Veliko Tarnovo "St. Cyril and Methodius". A master's degree in the specialty "Health Care Management" was completed in 2009 at the MU "Prof. Dr. Paraskev Stoyanov" - Varna. Pavlina Teneva's professional career began as a "medical laboratory technician" in the central clinical laboratory of UMBAL - Stara Zagora. Since 2007, she has been a part-time lecturer in Clinical Practice at the Medical College - Stara Zagor, and since 2009, she has been the head of the "medical laboratory technician" specialty. Since 2016, she has been appointed as a senior teacher, and since 2020, she is a Deputy Director of the Medical College at Trakia University - Stara Zagora.

The abstract of the dissertation contains the main elements of the conducted research. The results are graphically presented and thoroughly analyzed. Three publications related to the dissertation are presented, of which Pavlina Teneva is the first author.

In conclusion, I believe that the dissertation work developed by Pavlina Teneva on the topic: "Practical training of medical laboratory technicians for the formation of professional skills and competences" has significant contributions and shows the deep interests of the doctoral student regarding the training of medical laboratory technicians. I give a positive assessment of the developed dissertation work and recommend to the respected members of the Scientific Jury to make a decision to award Pavlina Penkova Teneva an educational and scientific degree "Doctor" in Health Care Management, in the field of higher education 7. Health care and sports, professional direction 7.4. Public Health.

16.01.2023

Sofia

Reviewer:

Prof. G. Tchaneva, PhD

