

*Review for scientific degree "Doctor of Science"*

**Review**

**by**

**Prof. Dr. Georgi T. Tomov, PhD**

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Appointed by order №P-109-371/04.11.2024. for a member of a scientific jury in the procedure for acquiring a **scientific degree "Doctor of Science"** in the field of higher education 7. Health and sports, professional field 7.4. Public Health, specialty "Public Health Management" by **Assoc.Prof. Mihaela Atanasova Varneva, PhD**, with a dissertation entitled "Professional association and development of the activities of dental technicians in Bulgaria."

**1. General presentation of the procedure and the candidate**

The review of the documents shows that the procedure for the announcement of the defense has been followed, the documents have been prepared in accordance with the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its application and the Regulations for acquiring scientific degrees and occupying academic positions at the Medical University – Varna.

**2. Brief biographical data about the candidate**

Assoc. Prof. Mihaela Atanasova Varneva, PhD, graduated in 1983 at the "Dr. Nencho Nikolaev" Institute - Varna in the specialty "Dental technician". After additional trainings and acquisition of a teaching qualification, in 2000 she became a "bachelor" in "Health Care Management" at HMI - Plovdiv. He gradually passed through the positions of "part-time instructor" at MC - Varna to an Assist. Prof. at MC - Varna. In 2013 she obtained a PhD in the specialty "Social medicine and organization of health care and pharmacy". Since 2015 she is an associate professor in "Public Health Management" at the Medical College of the Medical University of Varna. In connection with the dissertation, the candidate has published **12 full-text articles in which she is the first and only author**.

**3. Relevance of the subject matter and relevance of the set aims and tasks**

Dental technicians are essential members of the dental team and play an important role in the patient treatment process through the specialized medical devices they manufacture. Throughout its long history, the profession of dental technician has continuously changed in synchrony with the ever-changing demands of dental practitioners, patients and the healthcare system. However, these processes did not develop synchronously in different parts of Europe and the world. In addition, the political, cultural and socio-economic features in certain periods of the historical development of the profession in Bulgaria have led to the emergence of differences between the experience and traditions regarding the normative base, activities and training of dental technicians in our country

and abroad. Last but not least, new materials and technologies are constantly coming to market. Both before and now after Bulgaria's accession to the EU, it is necessary for practicing dental technicians to be trained throughout their lives in order to be competitive in the labor market.

The lack of a comprehensive study of the historical data on the professional associations of dental technicians in Bulgaria, the lack of a systematic study of the opinion of dental technicians about their professional organization (the Bulgarian Association of Dental Technicians) regarding their expectations from it, the lack of methodology and organization of continuing/postgraduate training for dental technicians and others appointed by Assoc.Prof. Mihaela Varneva questions concern not only narrow specialists in the field but also public health care. That is why I consider that the chosen topic is relevant, and the purpose, tasks, methodology and organization of the research formulated in this way are expedient.

#### **4. Knowledge of the problem**

The literature review covers 86 pages and is based on 281 cited sources (204 in Cyrillic and 77 in English). In this review, the candidate consistently makes a brief overview of the topic, which includes a presentation in chronological order of the professional organizations in health care, with special attention being paid to the role of the trade union movement in Bulgaria from its inception to 09/09/1944. The narrative continues with an overview of the conditions and circumstances surrounding the revival of the professional organizations and associations in health care after 1990. The emergence and development of the activity of dental technicians in Bulgaria is examined in details, with some of the presented facts and documents being made public for the first time. A separate chapter presents the activities of dental technicians in 21 countries around the world (Japan, USA, Australia, Europe, etc.). The legal regulation of the professional organization of dental technicians in Bulgaria (BADT), its structure, functions, goals and tasks has been analyzed. Attention was also paid to the professional organizations of dental technicians abroad, and a comparative analysis was made.

The literature review demonstrates a very high professional culture and knowledge of the problem by the candidate. According to the researcher, it is necessary to preserve the historical data and artifacts about the professional associations of dental technicians and to assure their rightful place in the Bulgarian medical historiography. Thanks to the detailed literature review and the results of her own research, as well as her own experience as a instructor and long-term member of the profession, the researcher makes a successful SWOT analysis of the activity of dental technicians and develops a systematized model for the development of the activity in the specialty. "Dental technician" and a strategy for the development of the profession.

#### **5. Methodology of the study**

The study aim is clearly formulated, and the ten tasks for its resolution are logically selected and described. A sufficient volume of material was used to solve them. The first four tasks are related to the periodization of the "Dental Technician" profession in Bulgaria and are based on a rich source base and normative documents. The fifth task examines the legal framework regulating the creation and operation of the BADT. In task №6, the focus is on the experience of foreign professional organizations of dental technicians and the activity of the "Dental Technician" specialty. In the seventh task, the demographic, professional and qualification characteristics of the working dental technicians and instructors in the specialty with the educational and qualification degree "Dental Technician" are made. Tasks №8 and №9 examine the opinions and knowledge of practicing dental technicians and teachers in MK about the regulatory framework and management of the BADT and their expectations regarding the postgraduate education, which is related to the

formulation of working hypotheses by the researcher. In the last task, a SWOT-analysis of the activity in the specialty "Dental Technician" in Bulgaria is made. The development of the dissertation work was carried out in six chronologically consecutive and logical phases one after the other.

The methods and scheme of conducting the studies are comprehensively described. The statistical methods used are correctly selected, which is a prerequisite for the credibility of the conclusions drawn.

## **6. Characteristics and evaluation of the dissertation**

The dissertation is written in four chapters and contains 239 pages. It is illustrated with 19 tables, 24 figures, 24 photos, 4 diagrams and 9 appendices. The bibliographic reference includes 281 sources, of which 204 are in Cyrillic and 77 in English.

The dissertation begins with a literature review on the problem which connects the debatable questions on the topic with the aim and tasks formulated by the researcher. After formulating the aim and the ten tasks, the candidate presents in sequence the materials and methods used in the dissertation. Based on the in-depth study of literature sources, documents, in-depth interviews and other results of her own research, the researcher formulates 10 conclusions, on the basis of which she makes recommendations to the BADT, the three Medical Universities and their Medical Colleges, the legislator and dental practitioners themselves. The conclusions drawn are reliable and reflect the contributions of the dissertation.

I consider that the results obtained fill to a large extent the existing gaps regarding the history of professional associations and organizations of dental technicians, as well as the fact that for the first time in our country, the opinion of the members of BADT and the instructors of the "Dental Technician" specialty regarding their attitudes towards BADT and other important issues for the professional group which will allow improvement of the activity of the organization and the activity of the specialty.

## **7. Contributions and significance of the dissertation for the science and practice**

The overall analysis of the results leads to the formulation of scientific contributions of an original nature (8 contributions of a theoretical nature and 5 contributions of a practical nature) which I accept. Of the two groups of contributions, I consider two of them to be the most significant in terms of the professional development of the specialty - the developed original methodology for the *постградуате трайнинг* of dental technicians in our country and the methodology for tutoring during the training of dental technicians during the educational practice and pre-diploma internship at the certified laboratories.

## **8. Assessment of the publications on the dissertation**

In connection with her dissertation, Assoc.Prof. Michaela A. Varneva has published 12 full-text articles, in which she is the first and only author. They reflect different aspects of the dissertation work having a contributing value.

## 9. Personal involvement of the candidate

The candidate's personal involvement in planning and carrying out the work, in the analysis of obtained results and in the formulation of conclusions and contributions, are beyond doubt.

## 10. Abstract

The presented abstract reflects in a synthesized form the structure and content of the dissertation

## 11. Critical comments and recommendations

Only three of the articles published in connection with the dissertation work are in a foreign language (one in Russian and two in English), which reduces the possibility of dissemination of the results of the author's research to an wider audience.

## 12. Recommendations for future use of the dissertation contributions and results

I think Assoc.Prof. Michaela Varneva can and should continue her future research on this topic. The organization and conduct of continuing/postgraduate education of dental technicians is of critical importance for their professional competence and their competitiveness in the labor market. In this context, it is particularly important for the legislator and the professional organization to unite their efforts in this direction. The present dissertation provides a solid methodological tool for exactly that action. In addition, dental technicians must be informed and motivated about the possibilities for such continuing/postgraduate education. This activity can also be organized in the form of a lecture for the continuing education program of BADT.

## CONCLUSION

The dissertation work has led to the achievement of **scientific and applied results** that represent a contribution to science and meets the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its Application and the Regulations of MU – Varna. The presented materials and dissertation results fully comply with the specific requirements of MU - Varna.

Due to the above, I confidently give my positive evaluation for the conducted research, presented by the above-reviewed dissertation, abstract, achieved results and contributions, and I propose the honorable scientific jury to award the educational and scientific degree „**Doctor of Science**“ to MIHAELA ATANASOVA VARNEVA in in the field of higher education 7. Health and sports, professional field 7.4. Public Health, specialty "Public Health Management".

09. 12. 2024  
Sofia

Reviewer:

Заличено на основание чл. 5,  
§1, б. „Б“ от Регламент (ЕС)  
2016/679

Prof. Dr. Georgi T. Tomov, PhD