

PEER REVIEW

by Assoc. Prof. Nevyana Georgieva Feschieva, MD, PhD

of a dissertation work

on the theme of

‘Professional uniting and development of the activity of dental technicians in Bulgaria’

for awarding the scientific degree of ‘Doctor of sciences’

in the scientific speciality of Public health management

professional direction 7.4. Public Health

in the field of higher education 7. Public Health and Sports

The dissertation work is discussed and forwarded to the public defence by the Department of Social Medicine and Public Health Organization at the Medical University of Varna during a Departmental Council on June 24, 2024. By Order of the Rector of the Medical University of Varna No R-109-371/November 4, 2024 and by a decision of the Faculty Council of the Faculty of Public Health according to Protocol No 232/ October 16, 2024, and in line with a report with incoming No 102-2736/October 8, 2024 by Assoc. Prof. Nataliya Usheva, MD, PhD, Head of the Department of Social Medicine and Public Health Organization, I am assigned member of the Scientific jury.

According to Protocol No 1 from the first session of the Scientific jury performed on November 12, 2024, I am assigned to prepare a peer review. The peer review is prepared based on the analysis of the documents submitted by the candidate (as described in the Application to the Rector of the Medical University of Varna) in conformity with the requirements of the Law for the development of the academic staff in Republic of Bulgaria, the Statute-book for the application of the LDASRB, and the Statute-book for the development of the academic staff of the Medical University ‘Prof. Paraskev Stoyanov’ of Varna.

1. Candidate’s brief biographical data and career development

Assoc. Prof. Mihaela Varneva, PhD, was born on November 11, 1963 in the city of Varna. In 1983, she graduates in medicine from ‘Dr. N. Nenkov’ ITHCSSE of Varna in the speciality of ‘dental technician’. After it, she builds education over and acquires high medical education and lecturer’s qualification (1987-1990 in the ITP of Sliven), and high medical education in the speciality of ‘dental technician’ (1994 in the HMI of Varna). She is ‘bachelor’ in

the speciality of 'Public health management' with a professional qualification of 'Head of Nursing Care and Lecturer in a College' (in HMI of Plovdiv, 1998-2000). She is 'master' in the speciality of 'sports psychology' in National Academy of Sports, 2009-2010).

After a successful defence of a dissertation work on the theme of 'Retrospection, analysis and socio-psychological problems during the training and realization of the 'professional bachelor' in the speciality of 'dental technician', she acquires the educational and scientific degree of 'Doctor' in the scientific speciality of 'Social medicine and organization of public health and pharmacy' (in 2013). In 2015, she attains academic rank of 'Associate Professor' in the speciality of 'Public health management'.

She starts her professional way as dental technician in the District Stomatological Polyclinic of Varna in 1983. Since 1984, she is part-time lecturer and from 1986 to 2006, she is full-time lecturer in practice in the HMIute/MC of Varna; she continues to work as lecturer in the MC at MU-Varna. After attaining academic rank, she is associate professor at the Department of Clinical Medical Sciences of the Faculty of Dental Medicine at the Medical University of Varna (2015-2021); since 2021 until presence, she continues to work as associate professor in the Educational Sector of 'dental technician' at the MC, MU of Varna.

Assoc. Prof. Varneva has a considerable publication output. She is author of one monograph with 150 pages, one chapter in a textbook with 18 pages, four textbooks with 318 pages, 100 articles with a total of 500 pages, and 34 reports with a total of 136 pages. She is participant in 50 national and international scientific forums during which she presents results from her research activity. She has three registered useful models at the Patent Office of Republic of Bulgaria. She is researcher in the Project No 23007 'Knowledge, relationships and practices associated with the control of the cross-infections in the dental technical laboratories' financed by the 'Science' Fund for 2024-2025.

Assoc. Prof. Varneva conducts exercises in the educational disciplines of orthodontics, maxilla-facial prosthetics, topical technologies in orthodontics in the speciality of 'Dental technician' and in Introduction into research in the specialties of 'Medical beautician' and 'Rehabilitation therapist'.

During the years, she has participated in the development of the college education in the speciality of 'Dental technician' as member of expert commissions, programme and college councils, and such-like. Awards: Charter for extraordinary deeds for the development of the

Medical College of Varna and Honorary diploma for the contribution to the scientific activity of the Medical College of Varna.

Generalization: *Assoc. Prof. Varneva has uninterruptedly worked for her professional perfecting and enhancement of her educational level as, in parallel to that, she has developed a considerable research capacity. She has achieved the ESD of 'doctor' and AP of 'associate professor'. Permanently associated and presenting with recognized contribution to the development of the speciality of 'Dental technician'. She has all the grounds, both biographical and based on her career development, in order to undertake the elaboration of a dissertation work in this thematic field, with aspirations for 'doctor of sciences'.*

2. Actuality of the theme.

Traditional tasks of the professional associations since the time of the guilds are care for the well-being and statute within the society of their members and approval of the corresponding professions. After a long-lasting period of almost fusion with the state, during the last 2-3 decades, the professional-class organizations in our country revive. Their functions are the object of discussion first of all in relation to the regulated professions which professional organizations are the only ones with the right of self-government. Taking into consideration that among all the recognized regulated professions in Bulgaria, 20% are in the field of public health, the increased interest in their organizations becomes clear. The challenges faced by the professional organizations in public health consist in the defence of the specific professional interests, the elaboration of standards for professional education and for quality of the activities accomplished, and the provision of opportunities for continuous education during the whole life of their members. Nevertheless, there are a few or even absent investigations on them that is particularly valid for the professional associations of the dental technicians. One of the explanations of this fact is their long-lasting belonging to the craftsmanship and their later commitment with the medical area. However, a compensation of the delayed investigations is still more imperative because of the changes in the societal and professional environment and with a view to the rapid entering of the digital technologies and new materials into the modern dental technical practice. The absence of investigations until now gives a perspective of these problems because it is related to the people, organizations, education, standards, quality and it is in the core of a future adequate development of the profession. This makes it namely undoubtedly topical.

3. Scientometric analysis of the dissertation work

In relation to the dissertation work, the candidate has submitted 15 full-text publications: one - in editions abstracted and indexed in world-famous databases with scientific information and fourteen (14) published in journals which are not abstracted and are with scientific peer reviewing, or in collective volumes. Her publications are independent, with an only author. They supply a total of 480 scores. In the detailed information issued by the Library of the Medical University of Varna, a total of 30 citations are indicated, of which four (4) are in monographs and twenty-six (26) are in journals which are not abstracted and are with scientific peer reviewing and which supply a total 170 scores. The scientometric requirements for a dissertation work for awarding the scientific degree of 'doctor of sciences' are not only completely satisfied but also surpassed.

4. Structure of the dissertation work

It is elaborated in a structure of a classical type with four chapters: Literature survey; Purpose, tasks, methods and organization of the investigation; Own results and discussion; Conclusions, recommendations, and scientific contributions. The dissertation work contains 239 standard pages and is illustrated with 19 tables, 24 figures, 24 pictures, 4 schemes, and 9 appendices. The reference list includes 281 literature sources, of which 204 are in Cyrillic and 77 in Latin.

5. Evaluation of the dissertation work

Evaluation of the literature survey

The literature survey is displayed on 83 pages or about 39% of the total volume of the work, without the reference list. It includes seven paragraphs which can be systematized in the following manner for the purposes of the present peer review:

- a) Class organizations in the public health in Bulgaria - far and recent (since 1990) history;
- b) Activity of the dental technicians in Bulgaria - origin, development. Foreign experience;
- c) Class organizations of the dental technicians in Bulgaria - legal regulation, structure, tasks;
- d) Professional organizations of the dental technicians - foreign experience.

This systematization is a starting-off point of the whole methodology and performance of the investigation. In each of these directions, the survey contains not only an ordinary overview of documents and literature but also results from own investigations, particularly in the paragraphs called by the author as ‘foreign experience’. In the historical part for Bulgaria, Assoc. Prof. Varneva demonstrates a very good awareness, she relies not only on different sources (including certificates of the time such as publishing, personal archives, memoirs) in order to introduce the readers into the atmosphere of the processes considered but also she expresses her personal attitude, grounded opinion, or points of view. This is rather typical of the recent history, since 1990, where researcher’s personality is most appreciably present.

Her approach to discuss the practising and development of the profession of ‘dental technician’ within the context of the digital technologies deserves a very good evaluation. The literature survey called conditionally so does not fit into the trivial understanding of this term, at least in the medical dissertations rather than it represents an own investigation. It is informative, cognitive, has a contributory nature and it is recommendable that some parts of it to find their broader readership in an appropriate form.

Note: I consider logical the fact that the candidate finds comparatively scanty and insufficient information about the profession of ‘dental technician’ in several databases such as ResearchGate, Medline, Pub Med, Google scholar, eLibrary.ru, Scopus by using the key words *Dental technician associations, professional organizations, dental technician activities* and *зубной техник*, while the greater part of the publications revealed are related to the profession of ‘dental physician’. The reasons are partially indicated above in the paragraph of ‘Actuality of the theme’, however, this only strengthens the value of the information found by Assoc. Prof. Varneva.

Evaluation of the purpose, tasks and organization of the investigation

The main purpose is: to make a retrospection of the activity of the professional and class organizations in public health as a whole and, more concretely, of the professional associations and organizations of the dental technicians during the period from 1910 to 2022 and to analyze the opinion of the practising dental technicians and lecturers in the speciality of ‘Dental technician’ about BADT and several other important questions of the education and practising in this speciality.

Ten tasks, two hypotheses and a subject are formulated for the accomplishment of the purpose. The object of the investigation are:

a) all the dental technicians in Bulgaria registered as of September 1, 2020 in the 25 RBs of BADT. The 360 persons included in the sample are of a good representativeness - of 21,82% out of the general aggregate.

b) all the lecturers in the speciality of dental technician from the three medical colleges at the medical universities in Sofia, Plovdiv, and Varna. The 18 persons included are of a very good representativeness - of 75%. The study design is precisely presented in six phases which are chronologically consecutive and logically related one to another.

The research methods are well-selected, adequate to the purpose and tasks set and a felicitous combination between traditional and innovative, between qualitative and quantitative. Points to note are: a documentary historiographic method, qualitative contents-analysis of documents, analysis of the literature from publications on the theme of the investigation available, in-depth interviews, observation (live and of video recordings). The statistical methods applied contribute to the revealing and presentation of dependences between the events studied.

The well-elaborated methodology is the basis for the success of the investigation planned and the fulfilment of the purpose and tasks of the dissertation work.

Evaluation of the results and conclusions

The dissertation work presents a broad picture in a historical plan of the professional and class organizations in public health in Bulgaria and their significance for the development of the professions and the public health. On this background, the candidate analyzes for the first time the associations of the dental technicians from 1910 to 2022 by revealing new facts and gives personal standpoints, particularly for the period since 1990, in which she is witness and participant.

A historical periodization of the organization of the dental technicians in Bulgaria is done. The activity of the PCO in foreign countries is analyzed, a comparative analysis with the Bulgarian ones is performed, and a great abandoning in our country in terms of the organization and performance of the CPE is established.

A SWOT-analysis of the activity in the speciality of 'Dental technician' in our country is performed and the superiority of the strengths over the weaknesses and of the opportunities over

the threats is found out. The comparative analysis of the foreign experience with own investigations demonstrates identity of the qualities for the practising of the profession necessary in our country and in the other countries.

BADT regulates the activity of its members through a series of normative documents, maintains registries, however, it does not organize CPE for the dental technicians who are its members.

For the first time in Bulgaria, the attitude of the dental technicians to their own professional organization is studied. Lack of satisfaction due to the absence of care on the part of BADT for the development of CPE is established. The most preferred themes for the courses are found out. The lecturers at the colleges meet the USSR, they have a readiness to teach in the courses, they do not, however, recognize BADT as their organization.

Based on the investigations, Assoc. Prof. Varneva has elaborated a Model for the activities in the speciality and a Strategy for the development of the profession of 'Dental technician'.

The dissertation work terminates with appropriate recommendations, in which I could recommend that the imperative tone when addressing them should be softened by a little bit.

The author's dissertation summary, written in 76 pages is very well-shaped, it reflects the most essential aspects of the work and passes on researchers's spirit of the investigations and messages.

Personal impressions. I know the author since the time of the preparation of her first dissertation with which she first in the Medical College of Varna acquired the ESD of 'doctor'. She likes her profession and is devoted to it, she manifested spirit of a seeker, she first in the country undertook investigations of the history of the dental technique, she published a book on this theme. She is regular participant, and since recently, lecturer in the seminars and courses of the history of medicine. Her fruitful collaboration some time ago with the Museum of history of medicine resulted in several interesting events focused on the profession of the dental technician. I believe that her experience and professional devotedness will help her to achieve at least some part of the conceptions and recommendations in the dissertation work.

Conclusion

The dissertation work submitted represents a finished scientific product elaborated on a problem which is poorly investigated until now and inserts new knowledge in science as well as

ideas for future scientific investigations. Its results contain contributions of scientific and theoretical and applied nature. The work as well as the other dissertation materials completely meet all the requirements of the Law for the development of the academic staff in Republic of Bulgaria (LDASRB), the Statute-book for the application of the LDASRB, and the corresponding Statute-book of the Medical University of Varna. All this gives me grounds to give the positive evaluation of mine of the entire investigation performed and to propose to the honoured Scientific jury to award ASSOC. PROF. MIHAELA ATANASOVA VARNEVA, PHD, the scientific degree of 'doctor of sciences' in the field of higher education 7. Public Health and Sports, professional direction 7.4. Public Health, and speciality of Public health management.

Member of the Scientific jury:

Assoc. Prof. Nevyana Feschieva, MD, PhD