

THEORETICAL ASPECTS REGARDING THE DENTAL TECHNOLOGY EDUCATION IN BUCHAREST. PAST AND PRESENT

MIHAI BURLIBAŞA¹, VIOREL ŞTEFAN PERIEANU²

^{1,2}“Carol Davila” University of Medicine and Pharmacy, Bucharest

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Abstract: Over time, dental technology education had extremely interesting developments, especially in Bucharest, starting with the second half of the 20th century. The most important personality of dentistry of the 20th century who was involved in the establishment and then promotion of dental technology education not only in Bucharest but throughout the country was Professor Dan Theodorescu. In this paper we have tried a succinct approach to dental technology education from the very beginning to the present day.

Introduction

As it is well known, the dental technician has a special role in outpatient dental care in Romania, along with the dentist and dental nurse. Thus, through dental care we understand the prevention, detection and treatment of the oral and maxillofacial area disorders, which in most cases have as a starting point and/or interest the dento-maxillary system.(1-6)

Since most dental conditions does not cause a general health alteration and by their nature dental treatments do not require long-term care of a patient in a specialized hospital under admission, dental care is, to a large extent, ambulatory care.(1-6)

However, there are also a number of dental conditions influencing the general condition of the patient and which, due to the nature of the treatment, require hospitalization for a longer and / or shorter time (more specifically, a continuous and lasting observation) in a specialized service.(1-6) These disorders (traumas, suppurations, tumours etc.) have a dominant surgical character and their treatment is mainly performed in specialized surgical services: clinics and/or oral and maxillofacial surgery (O.M.S.).(1-6)

However, outpatient dental care is provided in dental offices and / or dental clinics by dental practitioners, assisted by dental nurses and by dental technicians, for the latter, only when appropriate.(1-6)

General data

But before we actually get to the role of the dental technician in the outpatient dental care in Romania, we have to make a few very important statements, namely: if by December 1989 (the moment of the Romanian Revolution which meant the fall of communism in Romania and the transition to a market economy), outpatient dental care was strictly ensured and financed by the Romanian State, since 1990 this medical assistance started to become a private sector and it has gradually become in 2019 that in our country the outpatient dental care is in private sector almost entirely. Exceptions to this privatization include only the dental clinics and services involved in dental university education, dental offices from schools and / or subordinated to city hall departments, as well as outpatient dental services in the service and subordination of some ministries (Ministry of National Defense, Ministry of Internal Affairs, Ministry of Transport, Ministry of Justice etc.) and

various other services.

As mentioned in the introductory part of this paper, outpatient dental care in Romania is provided both in the public state system and in the private system by dentists, assisted by dental nurses and where appropriate, by dental technicians [in the case of classical and / or implant supported prosthetic restorations, orthodontic appliances or various prostheses and devices for use in periodontology and oral and maxillo-facial surgery (OMF)]. These human medical complexes that work in outpatient dental care in Romania represent what we call the “dental medical team” and / or “dental team” and consists of: dental practitioner, dental nurse, and dental technician.

The role of the medical team in outpatient dental care

The functional links between the different components of the medical team of a dental service, whether private or public, are the following:(1-6)

1. The dentist is the head of the team and responsible for the treatment he indicates and performs with the help of the other elements of the team;
2. Dental nurse is a direct and hopeful help in all the therapies performed by the dentist;
3. The dental technician, in fact the character that interests us in this material, conceives and carries out classical or implant supported prosthetic restorations, orthodontic and/or prosthetic device with utility in periodontology and / or in oral and maxillo-facial surgery (OMF), after a precise and complete indication (as a prescription) given in writing by the dentist. Specifically, in this activity, the dental technician combine the pharmacist's responsibility - the correct execution of the recipe - with the creative role of the dental technician, the design of the restorations: prosthetic, orthodontic etc. which represents, in all respects, something unique.

The profession of dental technician

As shown in the title, the dental technician is in fact the main character of this material and we will focus our attention on it in the following. Thus, dental technology is a profession that, like the jeweller, sculptor profession etc. requires a special handiness, it is a strict execution profession, but it involves a very thorough training which is currently being achieved in educational undergraduate medical programs (3

¹Corresponding author: Mihai Burlibaşa, Str. Plevnei, Nr. 19, Sector 1, Bucureşti, România, E-mail: mburlibasa@gmail.com; Phone: +40723 472632
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years), which usually are part, in Romania, of Universities of Medicine and Pharmacy. Those who practice the “dental technology” are called “dental technicians”. Specifically, the exercise of the dental technician profession is accomplished through the following activities, of which we say:(7-11)

- manufacture and production of medical devices and dental prostheses, fixed and / or mobile, unique, signed and initialled written order, issued by the dentist and according to training and specialization;
- participating, together with doctors and other staff, to research on dental technology;
- participate with other staff in protecting the environment.

The dental technician also has a set of rights, among which we mention the most important:(7-11)

- Benefit from a fee freely negotiated with the dentist for the services rendered in the contractual relations established with the dentist;
- Make income from services provided under the contract with health care providers or health insurance companies and / or private health insurance companies;
- To insert in the contract with the dentist clauses regarding the conditions and term of execution of medical devices and unique dental prostheses on order;
- To self-improve through programs with specific content and duration, in the specializations provided by the present law;
- Can hire salaried employees in accordance with current legislation.

Also, the dental technician who has completed a form of university education with a dental technique profile, is competent to perform other professional activities such as:(7-11)

- Marketing and management of the dental laboratory;
- Didactic training in theoretical and practical or dental training or in dental technology administration.

At national level, dental technicians are organized in the Order of Dental Technicians in Romania (OTDR). It was established and operates under Law no. 96 (r1) and Law no. 147/2016 for the amendment of the Law no. 96/2007 regarding the exercise of the dental technician profession, as well as the establishment, organization and functioning of the Order of Dental Technicians in Romania.(3,4)

At national level, together with the Ministry of Health, O.T.D.R. is the competent authority with functions in controlling and supervising the practice of dental technician. Locally, O.T.D.R. is represented by the County Councils and the City Council of Bucharest.

The main tasks of this professional association are:(7-11)

- Defends the prestige and professional dignity of its members in relations with third-party natural or legal persons;
- Defends and promotes the professional interests of its members;
- Develops the Code of Ethics and Deontology of the dental technician profession and supervises its compliance;
- Provides professional and legal assistance to its members in cases of deviations from the professional Code of Ethics and Deontology, as well as settlement of disputes;
- Permanently draws up and updates the Unique Registry of Dental Technicians from Romania and manages the website on which it is published. It also elaborates the regulations regarding the registration in the Unique Register of Dental Technicians from Romania and its legal status in the cases of deviations from the norms of professional ethics and deontology, as well as in the settlement of disputes;

- Collaborates with the Ministry of Health to develop and monitor training and specialization programs with theoretical and practical components for dental technicians;
- Collaborates with the Ministry of Health to develop specific rules and regulations for the dental technician profession.

Theoretical and practical aspects of dental technology education in the capital of the country, Bucharest

Dental technology at this moment, year 2019, is a distinct specialty, with a three-year undergraduate degree, which can be found in the Universities of Medicine and Pharmacy from Romania, universities with regulated licensed studies in the field dental medicine. Specifically, these specialties in dental technology are found in most of the universities from Romania (University of Medicine and Pharmacy), affiliated either to Dental Faculties or to Midwives and Nursing Faculties (FMAM), such as and the case of the University of Medicine and Pharmacy “Carol Davila” Bucharest.

At the beginning, more precisely in the late 19th century, the dental technology in Romania did not exist as a standalone specialization, it was usually practiced either by people who did their studies abroad and later opened laboratories in Romania, or by various craftsmen specialized in already open locations, in jewellers’ workshops or in small craft schools in various cities of the country.(12-14)

Reliable data on the profession of dental technician, and further to a possible system of dental technology education, we find for the first time in the material Prof. Dr. Dan Theodorescu, a remarkable personality of Romanian medicine, rightly seen as the founder of modern dentistry in our country, a material considered revolutionary at that time and referring to the “organization of dental care in our country”. The name of the distinguished professor is at this moment on the frontispiece of the only Oral and Maxillofacial Surgery Hospital in Romania, a highly prestigious health facility located in Bucharest, which also hosts the headquarters of the Faculty of Dentistry within the University of Medicine and Pharmacy “Carol Davila”. The material appeared in the Romanian Journal of Dentistry (No. 5 from September-October 1940), a journal of the medical dentistry community from Romania at that time, and in fact the longest-lasting journal of dentistry that exists today (quoted by 12-14). The Professor Dan Theodorescu ideas were taken over two decades later by Professor Ioan Gall when he was head of the Methodological Center in Bucharest. From this very interesting material for the history of modern dentistry in Romania, we spoke (quoted 12-14): *“The role of dental technicians is very important, because they do all the prosthetic and surgical restorations, orthodontic appliances. They will be recruited from elements likely to receive such training: craft school graduates, health workers etc. The studies duration will be one year, their preparation being done in the dental clinics.”*

Fortunately, in just 3 years, on November 1, 1943, Professor Dan Theodorescu opened the first school of dental technicians in Romania at the new Clinical and Stomatological Institute opened at Colentina Hospital in Bucharest, an institute under the subordination of the Faculty of Medicine in Bucharest, the University of Bucharest, and Board of Civil Hospitals (Romanian: Eforia Spitalelor Civile), a three-level pavilion, with 74 beds, over 60 modern dental units, and a dental laboratory at European level for that time (the previous Clinical and Stomatological Institute was established in 1929 at Colțea Hospital in Bucharest and was chaired by Professor Mina Minovici, and was in operation until 1943, also under the control of the Faculty of Medicine in Bucharest, University of Bucharest.(12-14)

But at the level of 1941, this guild of dental

technicians was very seriously anchored in Romania, at that time not only a well-represented professional association for those times, but also an excellently documented journal called the Laboratory Bulletin, in which great names in dentistry from Romania, but also abroad, published scientific materials of very high accuracy.

In fact, this first School of Dental Technicians was the precursor of the future Dental Technology School that would appear in Romania after the establishment of the government headed by Petru Groza on 6 March 1945. At the beginning, these schools functioned more like craft schools coordinated by technical foremen and dentists, and once with the establishment of communist power in Romania, these schools of crafts gradually disappeared, their place being taken by schools with specialized dental technology profile. Specifically, the dental technology can be found as a self-standing specialization in high school studies of some specialized units (see health profile high schools throughout the country) or in very well-organized post-secondary schools that were found in the capital of the country, Bucharest, but also in many counties in Romania.

This system of dental technology education has been in operation even after 1990 for a period of time until Colleges of Dental Technology, with a 3-year study period, have been set up as part of Universities of Medicine and Pharmacy in the country.

But in Romania, in addition to the state Dental Technology Education, a private Dental Technology Education system also functioned in the form of private Colleges either affiliated to private higher education institutions or independent, most of which were subsequently dissolved, the Romanian legislation not allowing them to function in this formula, leaving only the colleges that worked alongside an accredited private higher education dental institution.

Next, we will briefly discuss about the forms of Dental Technology Education, either college or university education, which functioned at the "Carol Davila" University of Medicine and Pharmacy in Bucharest, where the majority of the authors of this material are active. Specifically, the College of Dental Technology of the "Carol Davila" University of Medicine and Pharmacy in Bucharest was established in 1996, and the management was assured by a Director (Prof. Dr. Emilian Hutu, Professor of Dental Prosthetics at the Faculty of Dentistry, "Carol Davila" University of Medicine and Pharmacy, Bucharest) and a Deputy Director (Prof. Dr. Dumitru David, at the time lecturer at the Faculty of Dentistry, "Carol Davila" University of Medicine and Pharmacy, Bucharest).

The material basis was that of the Faculty of Dentistry in Bucharest, whose teaching staff, especially those from the Department of Dental Propedeutics (later became the Department of Prosthesis Technology and Dental Materials), supported the theoretical and practical training process.

Initially, admission was common to the Faculty of Dentistry and the Dental Technology College, the admission classification being based on the candidate's choice or the mark obtained on the admission exam. Subsequently, admission to the Dental Technology College, "Carol Davila" U.M.F. in Bucharest took place separately, separating the exam topics, which included compulsory biology and one choice exam physics or chemistry, and was preceded by an elimination skill test (aptitude). This type of admission was only for a short period of time, afterwards the practical test was abolished, and the admission exam subject included besides the mandatory biology test, chemistry or physics of choice.

Since 1997, part of the teaching staff of the Department of Dental Propedeutics of the Faculty of Dentistry, "Carol Davila" UMF from Bucharest joined and graduated the

Dental Technology College from "Carol Davila" UMF in Bucharest. At the moment, within the University of Dental Technology Program of the Faculty of Midwifery and Nursing, "Carol Davila" UMF in Bucharest, there are only 2 teachers who obtained the dental technician diploma in 1997 and 1998 respectively. From the first promotion of dental technicians, 3 graduates were kept in the teaching process of the Dental Technology College.

License exam for the College of Dental Technology within "Carol Davila" UFM Bucharest was organized and supported during that period at the Faculty of Dentistry in Bucharest, where not only own graduates, but also the graduates of private and / or state Dental Technology Colleges from the country: Constantin Găucan College, Titu Maiorescu College, Galati College, Braila College etc.

From November 8, 2001 to October 1, 2008, the College of Dental Technology of the Faculty of Dental Medicine, "Carol Davila" UMF Bucharest was headed by Associate Professor Dr. Dumitru David, Department of Dental Propedeutics of the Faculty of Dentistry, that became since 2004 Department of Prosthetic Technology and Dental Materials at the same Faculty of Dentistry (later became the Faculty of Dental Medicine), "Carol Davila" UMF Bucharest, a valuable teacher for both theoretical notions and practical demonstrations. At this point in the academic year 2018-2019, Prof. Dr. Dumitru David is retired but continues teaching under hourly payment in the Graduate Program of Dental Technology (Dental Technology Department, "Carol Davila" Bucharest) with the same conscientiousness and dedication, as in the early years.

But a special mention must be made in this material, namely that we should not forget the essential role that both Prof. Univ. Dr. Vasile Donciu, regarding the establishment, and then the functioning of the Dental Technology College of the Faculty of Dentistry at the "Carol Davila" University of Medicine and Pharmacy in Bucharest (at that time, Prof. Vasile Donciu, PhD, was head of the Department of Dental Propedeutics of the Faculty of Dentistry, "Carol Davila" University of Medicine and Pharmacy, Bucharest), but also the contribution of Dr. Șerban Popescu in the formation of future dental technicians, highly valuable representatives of the medical academic community in Bucharest, who offered the notion of "dental technology" the respect, coherence and consistency from our days.

Starting with the academic year 2005, colleges, as a secondary education form in Romania, were disbanded, with the foundation of 3 and/or 4 years of short time university education, in this situation being also the College of Dental Technology, which turned into a 3 years university program. After the establishment of the university education of Dental Technology, an important role in the organization and functioning of the University Program of Dental Technological of the "Carol Davila" University of Medicine and Pharmacy in Bucharest was given by Prof. Univ. Dr. Ecaterina Ionescu, an emblematic personality of dentistry in Romania (at the time of the academic year 2018-2019, is Vice-rector of the "Carol Davila" University of Bucharest and President of the College of Dentists in Romania).

At the same time, starting with the academic year 2013-2014, the Faculty of Midwifery and Nursing of "Carol Davila" UFM Bucharest started to function as a self-standing entity, with leadership and its own functions grid, dean being Prof. Dr. Petru Armean.

In this context, the Dental Technology Program has been administratively passed under the jurisdiction of the Midwifery and Nursing Faculty, "Carol Davila" University of

Medicine and Pharmacy in Bucharest, with a functions grid separate from the Faculty of Dental Medicine, where it still works.

But the future of the University Program of Dental Technology has an uncertain future at this time. In 2017, the University Program of Dental Technology has successfully passed through an extremely difficult accreditation process sustained by the Romanian Agency for Quality Assurance in Higher Education (ARACIS), which in the end had a single recommendation, namely the passage of this Program under the subordination and administration of the Faculty of Dental Medicine. And this recommendation has been rightly done, all the teaching activity of this University Program of Dental Technology being carried out in the premises of the Faculty of Dentistry of the "Carol Davila" University of Medicine and Pharmacy in Bucharest, benefiting from the unconditional contribution of the teaching staff and auxiliary staff working here, but also the unlimited access to the specialized equipment in the inventory of the Faculty of Dentistry. And although this University Program of Dental Technology is closely linked to the Faculty of Dentistry, it continued to function administratively during the academic year 2018-2019 at the Faculty of Midwifery and Nursing of UFM "Carol Davila" in Bucharest.

However, there is not only hope, but also a great desire on the part of the teaching staff working within this university program, that DENTAL TECHNOLOGY should return as soon as possible to its place: within the Faculty of Dentistry of the University of Medicine and Pharmacy "Carol Davila" in Bucharest.

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