

REVIEW

From: Prof. Dr. Ani Beltcheva-Krivorova, DMD – Head of department „Pediatric dentistry”, FDM, MU-Plovdiv, external member of the scientific jury, according to Order № P-109-561/04.12.2020 of the Rector of MU-Varna.

Concerning: The competition for the academic position "Professor" in the field of higher education 7. Health and sports, professional field 7.2. Dental medicine and scientific specialty "Pediatric dentistry", announced in SG, issue 86 / 06.10.2020

Candidate: one - Assoc. Prof. Dr. Radosveta Stoyanova Andreeva- Borisova, DMD, PhD, DSc – Head of department “Pediatric dentistry”, FDM, MU-Varna.

The submitted materials for participation in the announced competition are in accordance with the requirements of LDASRB and in accordance with the terms and conditions for holding the academic position "Professor", according to the rules of MU-Varna.

I. BIOGRAPHY

Assoc. Prof. Radosveta Andreeva was born on February 17, 1972 in the town of Dobrich.

In 1997 she graduated from MU - Plovdiv, majoring in "Master of Dentistry"

Since 2009 she is a part-time assistant in the Department of Conservative Dentistry and Pediatric Dentistry at FDM-Varna

In 2011 after a competition she was appointed a full-time assistant at the Department of Pediatric Dentistry at the Faculty of Dental Medicine-Varna

In 2013 she acquired the specialty "Pediatric Dentistry".

In 2015 she obtained a master's degree in health management at the Medical University - Varna.

In 2016 she acquired ONS "Doctor" in the specialty "Pediatric Dentistry" in Medical University Varna.

Since 2016 she has been an Associate Professor at the Department of Pediatric Dentistry at the Faculty of Dental Medicine.

In 2018 she acquired the AD "Doctor of Science" in the specialty "Pediatric Dentistry".

In the period 2018 - 2020 Assoc. Prof. Andreeva is Deputy Dean of the Faculty of Dental
Medicine at MU-Varna.

II. RESEARCH ACTIVITY

In the current competition, Assoc. Prof. Dr. Andreeva participates with a dissertation for the acquisition of ONS "Doctor" on the topic "Premature loss of temporary teeth in children with mixed dentition. Need for space maintainers"; dissertation for the acquisition of SD "Doctor of Science" on "Complex dental treatment in children under general anesthesia"; monograph on "Pharmacological influence of the behavior of children with special health needs in need of dental treatment", 2020 г., ISBN 978-619-7486-05-6; The total number of points from the actual published articles is 336.5.

1. Publications in scientific journals: 17 articles, 2 of which are in referenced and indexed editions in Scopus and Web of Science.

In Bulgarian journals

- 2 in „Journal of IMAB”
- 1 in „Scripta Scientifica Medicinae Dentalis”
- 3 in „Varna medical forum”;
- 4 in „Medinform“
- 2 in „Notifications in Union of Science-Varna”

In international journals:

- 2 in IJSR
- 3 in International Bulletin of Otorhinolaryngology

First author: in 2 (12%) of all publications in journals

Independent author: in 6 (35%)

Next author: in 9(53%)

2. Participation in scientific congresses and forums: 35

There are 15 participations in national scientific forums and 20 in international forums indicated.

Dr. Andreeva also presents 22 certificates for participation in seminars, symposiums, etc.

3. Citations – 23 total, 4 of which are in referenced and indexed journals in a global database and 19 non-referenced journals with scientific review.

4. Doctoral students

Assoc. Prof. Andreeva is the research supervisor of 4 successfully defended doctoral students:

- Dr. Evgeni Vladimirov Dimitrov – PhD student in an independent form of education in the specialty “Pediatric Dentistry” with a dissertation on the topic "Application of preformed metal crowns in second grade carious lesions of temporary molars" at the Department of Pediatric Dentistry, Faculty of Medicine. Acquired ONS "Doctor" on February 23, 2018.

- Dr. Milena Todorova Georgieva - PhD student in an independent form of education in the specialty "Pediatric Dentistry" with a dissertation on the topic "Indirect aesthetic restorations made using CAD-CAM-technology for permanent children's teeth", at the Department of Pediatric Dentistry, Faculty of Dental medicine. She acquired ONS "Doctor" on July 31, 2018.
- Dr. Teodora Vladimirova Nikolova - PhD student in an independent form of education in the specialty "Pediatric Dentistry" with a dissertation on the topic "Oral manifestations of children with cardiovascular disease" at the Department of Pediatric Dentistry, Faculty of Dental medicine. Acquired ONS "Doctor" on July 31, 2018.
- Dr. Desislava Georgieva Dimitrova - PhD student in an independent form of education in the specialty "Pediatric Dentistry" with a dissertation on the topic: "Fixed crown prosthetics in childhood - functional aspects", at the Department of "Pediatric Dentistry", Faculty of Dental medicine. Acquired ONS "Doctor" on August 24, 2018.

III. ANALYSIS OF SCIENTIFIC ACTIVITY AND SCIENTIFIC CONTRIBUTIONS

The scientific activity of Assoc. Prof. Andreeva after the habilitation for associate professor is in the following main directions:

- *Dental treatment for children with special health needs*
- *Treatment of children with traumas*
- *Varia*, which includes publications examining the relationship between tinnitus and temporomandibular joint disease, dental awareness of white spots as a side effect of orthodontic treatment, parents' awareness of the relationship between adequate oral hygiene and their children's oral health.

Dental treatment for children with special needs

Children with special health needs (SHN) are a special group of patients suffering from various systemic disorders: physical, developmental, mental, sensory, behavioral, cognitive, emotional, which limits their functions and requires medical control, health intervention and / or use of special services and programs. Their dental care is hampered by physical, mental, social disability or disability. This explains the high degree of caries and other oral and periodontal diseases in these children, as well as the need for complete oral rehabilitation under general anesthesia, prevention, regular examinations and follow-up.

The monographic work has been developed in this thematic area, as 5 additional publications on the topic have been made (2, 8, 11, 12 and 13).

Article 2 studies children with Down syndrome (DS). Trisomy of chromosome 21 is the most common chromosomal abnormality that affects children worldwide. The aim of this study was to compare the prevalence of periodontal disease among children with Down syndrome and healthy children. In the same age group, 60 children and adolescents with Down syndrome and 60 healthy children were studied. Plaque index (PI) (Silness & Loe) and probing depth (PD) were measured.

In children with Down syndrome there is a higher chance for more frequent periodontal problems, which does not correspond to the level of their oral hygiene.

The purpose of Article 8 is to compare the prevalence of dental caries among children with Down syndrome and healthy children. The results show that the group with Down syndrome tends to have a lower DMFT index and fewer carious lesions compared to the control group. In 79% of patients with Down syndrome and 40% of those in the control group, no carious lesions were registered.

Children with special health needs (SHN) are a special group of patients suffering from various systemic disorders, who often have poorer oral and dental health than their healthy peers. There is a direct link between neglected oral hygiene, unwanted side effects of medications, a high degree of neglect of oral health and the need for dental treatment. The aim of review article 11 is to examine the clinical features of some major systemic diseases in childhood and their relation to oral and dental status. Review article 12 is to examine the epidemiology of children with special health needs, thus outlining basic guidelines, related to their prevention. The aim of Article 13 is to investigate the prevalence of carious lesions in children with special needs. The results of the registration of the dental status show a high prevalence of carious lesions in children with special needs (SHN) treated under general anesthesia, which is a result of the underlying systemic disease and the side effects obtained by the prescribed medications. Other reasons for the high number of carious lesions in these children is the lack of proper oral hygiene habits due to sensory impairment and pain from complicated carious lesions, as well as neglect of oral health due to concern for the underlying systemic disease. For children with special needs, it is very important to emphasize the control of oral hygiene.

In the monographic work and the published publications a systematic and in-depth study of the epidemiology, demographic characteristics, dental, hygienic, periodontal and orthodontic status of children with special health needs has been made. The scientific work describes methodically and accurately the clinical characteristics of the main groups of diseases and their relationship with oral pathology in these children. A detailed analysis of the main and specific risk factors associated with systemic disease in children with SHN, as well as their dental and periodontal status are needed to set goals for timely prevention and optimization of dental treatment of these patients.

The ability to help children with specific health needs in need of dental treatment is a matter of a lot of knowledge, skills, humanity and is a challenge for dentists. A detailed study of the epidemiology, demographic characteristics, dental, hygienic, periodontal and orthodontic status of children with specific health needs are needed to determine the goals for timely prevention and optimization of dental treatment of these children. The clinical characteristics of the main groups of diseases, the assessment of risk factors and the satisfaction of complete oral rehabilitation under general anesthesia, enrich the knowledge in connection with the treatment approach to this difficult contingent of patients. The prevention of carious lesions and periodontal diseases requires the creation of individual prevention programs based on precise, individual assessment of the risk of caries and periodontal disease for each child examined. The developed algorithm for treatment of children with special health needs under general anesthesia facilitates dentists in choosing the right clinical solutions.

Treatment of children with traumas

There are two publications in this field (1,10). One of the publications examines the restoration of traumatic damage to maxillary permanent central incisors using the wax-up technique. Traumatic damage to the upper front teeth is common in young children, especially when combined with an orthodontic problem - overjet. This article reports the presence of fractured maxillary permanent central incisors that have been successfully restored using a wax-up technique (1).

The second publication is a presentation of clinical cases of dental treatment of coronary root fractures with pulp involvement (10). Complicated crown-root fractures are one of the most difficult tasks facing dentists today. To ensure the best treatment for traumatized teeth, they must make an adequate treatment plan, make an accurate diagnosis and follow up. In such cases, the dentist should preserve the root dentin as much as possible to ensure reliable endodontic treatment and recovery. About 22% of children between the age of 8 and 10 have suffered injuries to permanent teeth, which especially affect the maxillary central incisors. Due to the presence of periodontal trauma, timely medical intervention is important for a good prognosis and high-quality treatment. The clinical case presents a 14-year-old child with a complicated fracture of tooth 21 and an uncomplicated fracture of tooth 11. Aesthetics are of significant importance for permanent teeth in this area, therefore, after endodontic treatment of a tooth with a complicated fracture, the Wax-up technique is used with a high quality composite for final restoration of fractured teeth.

Varia

A total of 10 publications are included in this area, which are made on various topics (3, 4, 5, 6, 7, 9, 14, 15, 16, 17).

Two of the publications are aimed at evaluating the accuracy of panoramic radiography for the detection of periapical endodontic lesions, as well as evaluating the accuracy of cone beam computed tomography (CBCT) to measure the volume, area and bone density of these lesions (3, 4). The results show that there is a statistically significant difference between the mean values of the K index measured in the angle of the mandible and the endolesion and the filling quality of the root canal is extremely important and affects both the volume of the lesion and bone density.

One publication examines the influence of behavioral factors on the risk of dental caries in children with pyelonephritis and nephrotic syndrome (5). The results of the study show that participants with a diagnosis of nephrotic syndrome are at higher risk for dental caries.

Tinnitus is a term used for auditory perception of sounds in the absence of superimposed ambient sounds. It may occur as a single symptom or as a component of otovestibular complaints. This can be an important symptom of hearing loss, dizziness, sound distortion, pressure or pain in the ear and more. There are many methods for examining tinnitus and treatment proves to be very difficult as well as etiologically defined and complex. Epidemiological data indicate a common association between temporomandibular disease and tinnitus. Disorders of the masticatory system can affect tinnitus through mechanical connections between the temporomandibular joint and the ear or by affecting neurons. This hypothesis explains how the fusimotor system of the muscles innervated by the trigeminal

motor nucleus is affected by defects in the occlusion of the teeth, which cause changes in the position and movement of the lower jaw. Inadequate occlusal contacts give rise to adaptive function of the mandible, and the most common compensatory muscle response is hypertension involving all mandibular muscles. Tinnitus and its association with temporomandibular disease have been discussed in three publications (6, 15, 16).

Another publication discusses the possibilities for maximum recovery of voice characteristics in effective collaboration between the dental team and specialists in otolaryngology and speech therapy (7).

Two publications evaluate the awareness of health professionals about the presence of white spots as a side effect during orthodontic treatment with fixed appliances and methods for their diagnosis, prevention and treatment (9), as well as parents' awareness of and the relation between oral hygiene and oral health of their children (14). Both studies found low levels of awareness, which necessitated, on the one hand, the development of methodological guidelines for dentists and, on the other hand, an increase in parents' oral health literacy in order to improve their children's oral hygiene.

The last publication (17) considers the application of glass ionomer cements in dentistry as an obturating material in temporary teeth for the treatment and prevention of dental caries. At present, they are often used in otological and neuro-otological surgery. In addition to bone reconstruction, they are used to repair eardrum defects, external ear canal reconstruction, mastoid obliteration, and stabilization of some hearing aids.

III. STUDYING AND TEACHING ACTIVITY

1. Teaching activity:

- Lectures in Bulgarian and English: Student training in the course of Pediatric Dentistry;
- Training of interns from 6th course and postgraduates.

2. Learning load for the last four years:

- 2016/17 – 345 h;
- 2017/18 – 318 h;
- 2018/19 – 281 h;
- 2019/20 – 162 h.

3. Participation in examination commissions: state exam for the specialty "Pediatric Dentistry"; state exam in pediatric dentistry for obtaining a master's degree in dentistry; semester exams in propaedeutics, prophylaxis and clinics of pediatric dentistry.

4. Participation in training of specialists in pediatric dentistry.

Acquired specialties:

2013 – Pediatric dentistry.

2015- Master's degree in "Health Management"

Foreign languages: English and Russian.

IV. MEDICAL AND DIAGNOSTIC ACTIVITY

Assoc. Prof. Dr. Radosveta Andreeva, DMD has a long and rich medical and diagnostic activity, in which she applies all modern methods of diagnosis and treatment in both pediatric and general dentistry. She demonstrates exceptional authority and is sought after by students, postgraduates, doctoral students.

Assoc. Prof. Andreeva has 23 years of experience as a dentist, of which 11 years as a teacher of pediatric dentistry. She has been working in her own dental clinic since 2000.

She is an established specialist. A significant part of her scientific research is clinically oriented, the results of which she applies successfully in her medical work.

V. SUMMARY OF SCIENTIFIC INDICATORS

Based on the materials submitted by the candidate, I propose the following table, which shows the distribution of the candidate's scientific papers according to the minimum requirements for AP "Professor" at MU-Varna (Table 1).

Table. 1: Distribution of the candidate 's scientific papers and the minimum requirements for AP "Professor" at MU-Varna.

Scientometric indicators	Минимални Изисквания (точки)	Assoc. Prof. Dr. R. Andreeva, DMD (points)	Points
Dissertation	50	50	1
Monographs	100	100	1
Doctor of Science	-	40	1
Publications in referenced journals	200	336,5	2
Publications in non-referenced journals			15
Citations in referenced journals	50	160	-
Citations in monographs			9
Citations in non-referenced journals			14
Total number of publications		17	
Teaching experience	7 years	11 years	
Average workload 2018-2020	100 hours	276 hours	
Doctoral students	2	4	

CONCLUSION

The documents submitted by Assoc. Prof. Andreeva fully meet the requirements of the Regulations on the terms and conditions for acquiring scientific degrees and academic positions in MU - Varna for acquiring the position of "Professor".

The highly valued by the students work of Assoc. Prof. Andreeva in the student training, the earnest presence as an administrator and participant in the training of specialists in the Department, as well as the scientific management of doctoral students with four successful defenses under her guidance, give grounds for high evaluation of teaching qualities and scientific - research activity of the candidate.

The presented volume of publications and monographs on significant issues in the treatment of children with special health needs, adequate presentation of the results and shared experience useful for theory and practice are a prerequisite for high evaluation of research and practical work of Assoc. Prof. Andreeva. I believe that the presented achievements of the candidate fully meet the scientometric requirements of MU-Varna for the award of the academic position "Professor".

The personal qualities of Assoc. Prof. Andreeva, her awareness as a lecturer and researcher, as well as her work as a methodological consultant in general developments in the Department are in support of a well-deserved academic position "Professor."

In conclusion, I strongly recommend the esteemed members of the scientific jury to vote for the award of the academic position "Professor" to Assoc. Prof. Radosveta Stoyanova Andreeva - Borisova.



Prof. Dr. A. Belcheva-Krivorova, DMD

Plovdiv, 12 february 2021