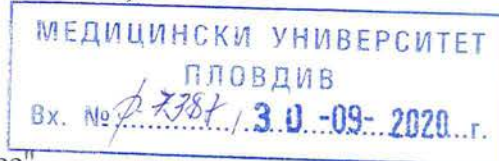


To
The Chair of the Scientific jury
According to Order № P-1556/16.09.2020
Of the Rector of MU-Plovdiv
Bul. V. Aprilov 15A, 4002 Plovdiv



Attached I present: Opinion

In regard with the procedure for awarding "Doctoral degree"
of **Dr. Plamena Todorova Sapunarova**, self-training PhD student at the Department of
Pediatric Dentistry, FDM, MU-Plovdiv

Prepared the opinion:

Assoc. Prof. Dr. Liliya Borisova Doichinova, PhD

Faculty of Dental Medicine - Sofia, MU - Sofia

Scientific specialty - Pediatric Dentistry

Faculty of Dental Medicine - Sofia, Department of Pediatric Dentistry

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OPINION

By Associate Professor Liliya Borisova Doichinova, PhD
Faculty of Dental medicine – Sofia
Department of Paediatric dentistry

In regard with the procedure for awarding **educational and scientific degree "Doctor"** in doctoral programme "Pediatric Dentistry" **Dr. Plamena Todorova Sapunarova**, self-training doctoral student at the Department of "Pediatric Dentistry", FDM, MU-Plovdiv, for the **development of a dissertation on the theme - "Oral health in obese children"** with academic supervisor Prof. Dr. Maria Kukleva-Todorova, PhD, DMSc in professional field 7.2. "Dental Medicine" and scientific specialty "Pediatric Dentistry", sphere of higher education 7. Health and sports.

The presented set of materials on paper and electronic media is in accordance with Art. 115 (1) of the Procedure for awarding "doctoral degree" in MU - Plovdiv; Regulations of MU-Plovdiv from 06.11.2014.

I. Biographical data and professional development.

Dr. **Plamena Todorova Sapunarova** was born on August 1, 1988 in the city of Plovdiv. She graduated from high school in 2007, EG "Ivan Vazov" Plovdiv. In 2013 she graduated from FDM, MU-Plovdiv. From 2013 to 2015 she worked as a dentist in Plovdiv. In 2015, through a competition, she was appointed as a full-time assistant at the Department of Pediatric Dentistry, FDM, MU - Plovdiv, where she still works today.

Her teaching activities include conducting practical and seminar exercises in pediatric dentistry with students.

Dr. Sapunarova is a member of BDA, BSSDM, NAPD.

Fluent in written and spoken English

II. Significance of the theme

The theme of the dissertation, developed by **Dr. Plamena Sapunarova**, has been widely discussed in recent years in the scientific literature.

Obesity is the most common chronic metabolic disease of our time with extremely serious long-term consequences. The World Health Organization identifies it as a global epidemic and a significant public health problem. Overweight and obesity among children and adolescents are gaining momentum, especially in developed countries.

According to the WHO, about 43 million children under the age of 5 are overweight. There are over 22 million of them in Europe and about 5 million are obese. Bulgaria is among the top six in Europe. It ranks fifth in Europe in childhood obesity from 32 countries in the 53-member region

of the World Health Organization in Europe. The main cause of obesity is the changed lifestyle of modern society, associated with harmful eating habits, reduced physical activity and stress.

Children with obesity are more at risk of diabetes and other endocrine diseases, diseases of the cardiovascular and respiratory systems, are more prone to allergies, more frequent problems of the musculoskeletal system, have psychological problems associated with low self-esteem, depression, eating disorders (anorexia and bulimia), etc. Obesity also affects oral health. Obese children are much more likely to become overweight and obese adults than normal-weight adolescents.

Dr. Sapunarova studies the oral health of obese children, which is a serious professional challenge. So far in Bulgaria this current problem has been studied only by nutritionists and endocrinologists. According to a study by the National Center for Public Health (NCPHP) in Bulgaria, 200,000 overweight children and 65,000 of them are obese.

In her dissertation, Dr. Sapunarova for the first time in Bulgaria assesses the oral health of children of different weights in terms of dental caries, dental erosion, oral hygiene and the prevalence of gingivitis and permanent tooth eruption. It also assesses the combined impact of social, family, oral hygiene and nutritional factors on their oral health.

All this determines the relevance and significance of the dissertation.

III. Knowledge on the problem by the doctoral candidate

The dissertation is written on 165 pages and is illustrated with 24 tables and 80 diagrams and 4 appendices. The bibliography includes 369 titles, of which 18 in Cyrillic and 351 in Latin.

Dr. Sapunarova shows excellent knowledge of the scientific literature, presenting data from many researchers. With a short introduction presents the essence of the topic. A very good impression is made by the doctoral student's good information about the normative documents of the Ministry of Health for healthy nutrition of students, recommendations for healthy nutrition of students and the dissertation of Prof. Maya Konstantinova, analyzing epidemiological data on childhood obesity in Bulgaria.

The literature review is 46 pages long and ends with a discussion of the literature data, which points to the chosen dissertation topic. Dr. Sapunarova has made a rich literary reference, confirming her very good information and in-depth knowledge of the problem.

IV. Research methodology

The purpose of the scientific work is clearly stated. It is achieved through six tasks, with demonstration of good clinical thinking and use of appropriate clinical and statistical methods. The methodologies are described in detail. The statistical analysis is done very professionally, using modern statistics.

V. Characteristics and evaluation of the dissertation and contributions

The dissertation is a personal work of the doctoral student and its structure is in accordance with modern requirements and contains all necessary sections: introduction, literature review, purpose and tasks, material and methods, results, discussion and conclusion on individual tasks, conclusions, contributions, bibliography and conclusion.

The **Results** obtained are well illustrated. They are presented with analysis in tables and diagrams.

In the discussion, Dr. Sapunarova makes a very skilful comparative analysis of her own results with the data published in the scientific literature.

The **Conclusions** are a consequence of the achieved results and the discussion and bring the scientific contribution of a dissertation.

I accept the **Contributions** formulated by Dr. Sapunarova. They are the personal work of the doctoral candidate.

Contributions of original character

1. For the first time in the country the frequency of dental caries in children with underweight, normal-weight, overweight and obesity is studied.

2. For the first time in the country the frequency of dental erosions among children of different weight is studied.

3. For the first time in the country, oral hygiene and the prevalence of gingivitis among children of different weights are studied.

4. For the first time in the country the eruption of permanent teeth of children of different weight is studied.

5. For the first time in the country social, family, oral hygiene and nutritional factors and their combined influence on the oral health of children of different body weight are studied.

Contributions of a confirmatory character

1. The high epidemic of overweight and childhood obesity in Plovdiv is proven.

2. The higher epidemic of dental caries of permanent dentition in children with overweight and obesity has been proven.

3. Accelerated dental eruption is proven in overweight and obese children.

4. The presence of common risk factors in the development of overweight and obesity in childhood and oral diseases in them is proved.

VI. Assessment of the doctoral candidate's publications and personal contribution

The list of scientific publications in connection with the dissertation includes 4 real publications in which Dr. Sapunarova is a leading author. She has 3 participations in Bulgarian and

international forums, where she is also a leading author.

Participates as a lead researcher in a project - UN-05/2017, funded by MU-Plovdiv, "Study of oral health in obese children" led by Prof. Dr. Maria Kukleva-Todorova, PhD, DMSc.

I have no critical remarks about the research and the materials presented.

I recommend Dr. Sapunarova to promote the results of her dissertation, which should be aimed at specialists in pediatric dentistry and general practitioners in dentistry.

VII. Author's summary

The author's summary reflects the content of the dissertation in a summarized form of 79 pages. It is prepared according to the requirements, reflecting the main results achieved by the dissertation. Scientific conclusions, contributions, publications and participations in Bulgarian and international congresses are included, as well as one project.

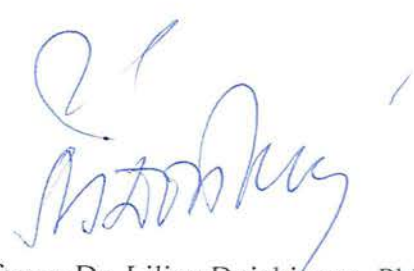
VIII. Conclusion

Dr. Plamena Todorova Sapunarova presents a dissertation with thematic relevance, containing scientific and practical results, which represent an original contribution to science and meet the requirements of the Law for development of the academic staff in the Republic of Bulgaria , the Rules for application of the Law and the Rules of MU - Plovdiv. The presented materials and dissertation results fully comply with the specific requirements adopted in connection with the Regulations of MU - Plovdiv for application of the Law for development of the academic staff in the Republic of Bulgaria.

The dissertation shows that **Dr. Sapunarova has in-depth theoretical knowledge and professional skills in the scientific specialty of Pediatric Dentistry**, showing the qualities and skills to conduct independent research and present the necessary publishing activity.

I give a *positive assessment* of the presented dissertation on the topic - "Oral health in obese children" and *I will confidently vote "YES"* and I *offer the esteemed scientific jury to award the educational and scientific degree "doctor" to Dr. Plamena Todorova Sapunarova* in doctoral programme "Pediatric Dentistry".

25.09.2020
Sofia


Assoc. Professor Dr. Liliya Doichinova, PhD