



University of Goce Delcev - Stip



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**First International Students  
Congress in Dental Medicine  
- 2018**

**DIGITAL VS  
ANALOGICAL  
IN DENTAL  
MEDICINE**

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Stip, Republic of Macedonia

28.03-29.03.2018

Multimedia centre, Stip

## 13:00-14:00 – POSTER PRESENTATIONS

|                | <b>POSTER PRESENTATIONS</b><br>Chairmen: Ass.Prof. Longurova N.; D-r. Rogoleva S.; student- K'rmazova S.   |
|----------------|--|
| <b>Theme 1</b> | <b>Early childhood caries: prevalence, risk factors and prevention</b><br>Author: <b><u>Nikola Stojkov</u></b> , Co-author: Viktorija Popovska<br>Mentor: Sanja Nashkova, Co-mentor: Ljupka Lazarova       |
| <b>Theme 2</b> | <b>Application of fluoride in children (advantages and disadvantages)</b><br>Author: <b><u>Tatjana Taseva</u></b> , Co-author: Katerina Mladenovska<br>Mentor: Ljupka Lazarova, Co-mentor: Sanja Nashkova  |
| <b>Theme 3</b> | <b>Role of fluoride varnish in preventing early childhood caries</b><br>Author: <b><u>Marija Novoselska</u></b> , Co-author: Suzana K'rmzova<br>Mentor: Sanja Naskova, Co-mentor: Sandra Atanasova         |
| <b>Theme 4</b> | <b>Traumatic injury caused by a toothbrushing: a case report</b><br>Author: <b><u>Ljubica Prosheva</u></b><br>Mentor: Sandra Atanasova, Co-mentor: Sanja Nashkova  |
| <b>Theme 5</b> | <b>Oral manifestations in patients with iron deficiency anemia</b><br>Author: <b><u>Marija Vojvodik</u></b> , Co-author: Simona Georgieva<br>Mentor: Olivera Terzieva-Petrovska, Co-mentor: Sonja Rogoleva |
| <b>Theme 6</b> | <b>Oral manifestation in patients with diabetic disease</b><br>Author: <b><u>Blagica Miteva</u></b> , Co-author: Ksenija Dimitrusova<br>Mentor: Sonja Rogoleva, Co-mentor: Olivera Terzieva-Petrovska      |
| <b>Theme 7</b> | <b>Oral manifestation of GERD and Crohn's disease</b><br>Author: <b><u>Maja Trajkova</u></b> , Co-author: Zorica Kozuharova<br>Mentor: Verica Toneva, Co-mentor: Aleksandra Toneva Nikolova                |
| <b>Theme 8</b> | <b>Beneficial effects of <i>Lactobacillus sp.</i> against <i>Streptococcus mutans</i></b><br>Author: <b><u>Spase Stojanov</u></b><br>Mentor: Darinka Georgieva Ačkova, Co-mentor: Katerina Smilgor         |

## Role of fluoride varnish in preventing early childhood caries

Author: **Marija Novoselska**, Co-author: Suzana K'rmzova

Mentor: Sanja Naskova, Co-mentor: Sandra Atanasova

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### **Abstract**

**Introduction:** Dental caries is one of the most common childhood diseases worldwide. Although dental caries can be arrested and potentially even reversed in its early stages it's often not self-limiting and progresses without proper care until the tooth is destroyed, affecting the quality of life. Fluoride varnish which is one of the most important materials to prevent ECC is easy to apply and well tolerated by children.

**Aim:** The main outcome of our investigation was prevention of early childhood caries following application of fluoride varnish and unavoidable fluoride exposure.

**Material and Methods:** Out of 190 articles originally identified, 17 articles met the inclusion criteria and these studies were assessed independently for methodology and performance.

**Results:** Analysis of literature revealed that basically two concentrations of fluoride varnishes have been used: 1% and 5%. Children without any fluoride varnish treatments had a mean dmfs (decay missing filled score) score of 23,6. There was no decrease in dmfs for children who received only two applications of varnish and only a slight increase for those who receive three applications. Children who received four or more applications of fluoride varnish over a two-year period had a mean dmfs of 15, which was 35% lower than children who had no treatments.

**Conclusion:** The results showed that fluoride varnishes have been used at concentrations of 1% and 5% in the prevention of ECC. The preventive fraction was influenced by the frequency of application, the duration of study and sample size.

### **Keywords:**

Early childhood caries, fluoride varnish, prevention