



## Abstracts Presented At the EADPH Annual Congress on 13 September 2019

The authors of the first four abstracts competed for the GSK research awards and gave 15 minute oral presentations they were:

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### ABSTRACT 4304 POTENTIAL COST-EFFECTIVENESS OF ORAL CARE IN INSTITUTIONALIZED OLDER PEOPLE: A HEALTH-ECONOMIC EVALUATION

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**Aim:** There is need for optimized oral care in institutionalised older people. The aim of this health-economic evaluation was to evaluate cost-effectiveness of different alternatives for preventive and curative oral care in institutionalized older people.

**Methods:** An age- and gender-specific Markov model was used to compare estimated costs and healthy oral years (HOYs) arising from four alternatives: (1) usual care; (2) in-house preventive care; (3) in-house preventive care + curative care in the community; and (4) in-house preventive care + in-house curative care. A healthcare payer perspective was adopted, the time horizon was 10 years, and the setting was Flanders (Belgium). Sensitivity analyses were performed.

**Results:** Alternatives 2 and 3 were predominantly dominated by the two other alternatives. Thus, they were not considered relevant. The incremental cost-effectiveness ratio (ICER) of in-house prevention + in-house curation (alternative 4) compared to usual care (alternative 1) was 1,132€ per HOY gained. The probability that an intervention would be cost-saving, compared to usual care, was less than 5% for all interventions.

**Conclusions:** Several assumptions based on expert opinion were needed to populate the model. However, based on these findings it is recommended to adopt a policy which combines preventive and curative oral care, and consider in-house solutions for oral health care in institutionalized older people. In that case. It should be kept in mind that large investments are required at the beginning of the intervention, and that - given the older population and the high costs of oral health care - even in the long term it is unlikely that this intervention will become cost-saving.

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\* Indicates who the presenter was

after informed consent from their parents. The indicators of district economic development that were analyzed involved: gross value added (GVA), social and health care expenditures, local self-government funding, unemployment rate, population density, density of physicians and dentists.

**Results:** The final sample involved 864 preschool children aged 36 to 71 months and 772 pre-schoolers aged 72 to 91 months. Physician and dentist density were not statistically significantly associated with observed oral health outcomes. Prevalence of caries in primary teeth ranged statistically significantly ( $p < 0.001$ ) according to districts from 45.8% ( $n=92$ ) in Western Serbia to 67.2% ( $n=121$ ) in Central Serbia. Prevalence of caries in primary teeth, untreated primary teeth caries and prevalence of caries in permanent first molars were statistically significantly associated with district economic indicators - caries affected children, and children with untreated caries lived in districts with lower GVA, social and health care expenditures, population density, and local self-government funding.

**Conclusions:** The results of this study showed strong association between oral health outcomes in pre-schoolers and socioeconomic determinants of health. Oral health preventive strategies should target deprived Serbian areas.

The presenter of this abstract was awarded a Borrow Foundation travel award.

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### 4273 ORAL HEALTH AND HALITOSIS STATUS OF TYPE 1 DIABETIC CHILDREN: A DESCRIPTIVE STUDY

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**Aim:** The aim of this study was to evaluate the oral health status and halitosis of healthy and type 1 diabetic children.

**Methods:** Between January and April 2018, a non-representative sample of type 1 diabetic ( $n=50$ ) and healthy children ( $n=50$ ), who were attending an endocrinology clinic and paediatric dentistry clinic, were recruited for this descriptive study. Data were gathered using a questionnaire, administered via face-to-face interview. Hacettepe University Non-Interventional Clinical Researches Ethics Board approval and parental written informed consent were obtained. Oral examinations were performed by one calibrated examiner in a paediatric dental clinic. Oral health status was evaluated by dmft/s, DMFT/S, ICDAS II, PUFA, index, plaque (PI) and gingival (GI) indices and halitosis by organoleptic assessment and sulphur monitoring methods. The statistical significance of differences were evaluated by Chi square, Fisher's Exact and Mann Whitney U tests.

**Results:** The mean age of the type 1 diabetes children (24 boys, 26 girls) was  $10.3 \pm 2.1$  years, and for the 50 healthy children (30 boys, 20 girls) it was  $9.9 \pm 1.5$  years. The mean dmft, dmfs, DMFT and DMFS indices of the children with type 1 diabetes were  $4.0 \pm 3.7$ ;  $10.6 \pm 9.4$ ;  $1.0 \pm 1.5$ ,  $1.3 \pm 2.2$ , and  $4.9 \pm 3.7$ ;  $12.5 \pm 11.4$ ;  $0.8 \pm 1.3$ ,  $1.3 \pm 2.3$  for the healthy children. Carious lesions were observed in 30 (60%) of the diabetic children and in 29 (58%) of the healthy children. PUFA was found in 10 (20%) of children in each group. The mean PI was significantly different between diabetic and healthy children ( $1.2 \pm 0.8$  and  $1.4 \pm 0.7$ ; respectively ( $p=0.04$ )). The mean GI was  $0.5 \pm 0.6$  in both groups. Six (12%) of diabetics and 9 (18%) of healthy children had halitosis.

**Conclusions:** In the population studied, the oral health status of diabetic children was better than that of the healthy children. However, it is important to emphasize the importance of oral health, regular oral care and dental visits for all children

The presenter of this abstract was awarded a Borrow Foundation travel award.

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### 4274 CAPABILITIES, OPPORTUNITIES AND MOTIVATIONS SUPPORTING ORAL HEALTH BEHAVIOUR OF ADOLESCENTS IN NIGERIAN SCHOOLS

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**Aims:** To determine the oral health capabilities, opportunities and motivations supporting oral health behaviour among adolescents in schools in a low-income country.

**Methods:** In 2018, this cross-sectional study was conducted among 2097 students in the 10th and 11th grades of 30 randomly selected secondary schools in Ibadan, Nigeria after obtaining ethical approval from the Institution's Ethics Review Board. Data were obtained with self-administered questionnaires to assess capabilities (oral health knowledge (K), attitude (A) and practices (P)) as well as motivation. A checklist was used to assess availability of oral health promotional activities/materials (opportunities) in the schools concerned. Data were analyzed with SPSS; bivariate analysis was performed using chi square and multivariate analysis with logistic regression. p value for significance was set at 0.05.

**Results:** The response rate was 99.5%. Poor oral KAP scores (<50%) were recorded among 2096 (99.9%) for K, 1288 (61.4%) for A and 1519 (72.4%) for P respectively. There were no oral health promotional materials in any of the schools and the only oral health promotional activity was oral health education in 8 (26.7%) schools; only 331 (15.8%) students had been educated about their oral health. About half 1161 (55.4%) were motivated and will participate in an oral health programme in school. Students; aged 12- 15 years (OR=1.6,95%CI=1.3-1.9, p<0.001), with skilled-worker parents (OR=1.9,95%CI=1.1- 3.3, p=0.020), had received previous oral health education (OR=1.6, 95%CI=1.2-2.0,p<0.001) or had consulted a dentist (OR=2.5,95%CI=1.6-4.0,p= <0.001) had better capabilities. Students who had  $\geq$  50% final KAP scores (OR=4.7,95%CI=3.3-6.7, p<0.001) had been educated about their oral health (OR =1.7,95%CI=1.1-2.4, p=0.011) were better motivated.

**Conclusions:** In the population studied there were gross inadequacies in the oral health capabilities, existing opportunities and motivations for positive oral health behaviour. There were disparities related to socio-demographic characteristics of the students and capabilities, opportunities, motivation influencing oral health behaviour. Oral health capabilities and opportunities were significant predictors of motivation for positive oral health behaviour.

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## 4278 ORAL HEALTH-RELATED QUALITY OF LIFE AFTER TREATMENT OF CHILDREN WITH MOLAR-INCISOR HYPOMINERALIZATION

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**Aim:** The aim of the study was to investigate the effect of treatment on the Oral Health-Related Quality of Life (OHRQoL) of children with Molar- Incisor Hypomineralization (MIH).

**Methods:** The study was reviewed and approved by The Human Research Ethics Committee of Marmara University, Dental School with the protocol number of 2016-43. A consecutive sample of children (11-14 years), who attended the Paediatric Department of the Marmara University Dental School, in need of treatment, participated in the study. An informed consent form was signed by the children and their parents/caregivers. Data collection was performed between August 2016-March 2017. The participants answered the self-reported 37 item Child Perception Questionnaire (CPQ11-14) and were clinically assessed by a trained research assistant. Children included in the study were diagnosed with MIH when at least one first permanent molar was affected, with or without the involvement of the incisors, according to the criteria proposed by the European Academy of Paediatric Dentistry. Before treatment, the OHRQoL of the 40 children, who participated in the study was assessed by CPQ11-14 using a self-report. at baseline. It was then reassessed six months later. All children filled in the questionnaire and were interviewed. The t-test and paired-t were used for statistical analysis (p<0.05).

**Results:** Data at baseline and follow-up were collected for all 40 children. Their mean age was 11.85 (SD=1.02) years. The overall CPQ11-14 score ranged from 3-83 (average 33.27 $\pm$ 16.46) at baseline and 0-61 (average 11.67 $\pm$ 11.21) at follow up. Emotional well-being received the highest score at baseline. A significant decrease between baseline and