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Oral Session O23 – Dental Anxiety and Behavioural Management 2

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Oral Session O23/Dental Anxiety and Behavioural Management 2

O23–165

Tramadol-A viable local anaesthetic alternative for pediatric dental extractions

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Introduction: The purpose of this randomized, triple blind cross-over study was to evaluate the local anesthetic effects of tramadol plus adrenaline as compared to lidocaine plus adrenaline during extraction of primary teeth. This study was approved by the Deparmental Research Committee, CSM Medical University.
Patients and methods: Twenty pre-school age children, who required extraction of two similar contralateral maxillary primary teeth, were selected for the study after gaining informed consent from their parents. The region around the tooth indicated for extraction was infiltrated on both the buccal and palatal aspects with either 1% tramadol or 2% lidocaine, both with 1:100,000 adrenaline. A crossover design was adapted so that each child received both regimens. Safety was monitored through vital signs and side effects. Pain perceived by the individual during the procedure was evaluated by blinded raters using Wong Bakers FACES Scale (WBFS).
Results: No significant difference was observed in the intraoperative WBFS scores of the patient ($P = 0.803$, Wilcoxon signed rank test). During the 24 postoperative hours, 16 of 20 (80%) subjects did not need any type of analgesia when tramadol/adrenaline was infiltrated, whereas this number was 10 (50%) when lignocaine/adrenaline was administered ($P = 0.031$, McNemar test) and the time span before first analgesic medication was longer with tramadol infiltration. ($P = 0.014$, Mann Whitney U test).
Conclusion: We propose that tramadol can be used as an alternative drug to lidocaine for extraction of primary teeth because of its ability to provide good anesthesia locally and decrease the demand for postoperative analgesia.

O23–166

Dental fear in children with CLP, a prospective study

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Introduction: Starting at birth, children with a cleft-lip, palate (CLP) are frequently exposed to invasive medical treatments of which a relation to dental fear is assumed. The aim of the present study is to compare the anxiety levels of children with CLP at baseline and 3 years later, testing the hypothesis that continuous exposure leads to a reduction of dental anxiety.
Materials and methods: For this study, 200 CLP children (4–18 year old, 72 girls) filled out the Children's Fear Survey Schedule-Dental Subscale (CFSS-DS). The older children (6–18 year old, $n = 142$) were asked to complete the Dental Cope Questionnaire (DCQ) as well. The same procedure was repeated 3 years later. Approval was given by the medical ethical committee of VU Medical Center.
Results: After 3 years, dental anxiety reduced significantly (24.6 SD 10.5 *vs* 23.0 SD 10.0, $P < 0.01$) to a level equal to a normative Dutch group. There is a significant decrease in the number of coping strategies used (4.2 SD 3.6 *vs* 3.2 SD 3.2, $P < 0.01$). A significantly high correlation exists between the total CFSS scores from both periods ($r = 0.790$, $P < 0.01$).
Discussion and conclusions: At a young age, CLP children have more dental fear than older children compared to a control group. Findings support the hypothesis that dental anxiety is related to medical intervention at young age. The significantly lower CFSS-DS and DCQ scores confirm the hypothesis that the continuous exposure to a CLP team results in a reduction of dental anxiety.

O23–167

Confidence of therapy students in paediatric dentistry

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Introduction: Dental Therapists are one group of professionals complementary to dentistry. Their remit includes all treatment for the primary dentition and direct restorations on the permanent dentition. Their undergraduate training lasts 27–36 months. At the University of Leeds a consultant in Paediatric Dentistry leads their paediatric module which is fully integrated with the undergraduate dental curriculum. This study investigated their self reported confidence in Paediatric Dentistry as their course progressed.
Materials and methods: The questionnaire, previously developed and validated at the University of Leeds, was given to 25 Dental Therapy Students at the start, mid-way and end of their training. It was composed of 18 questions relating to enjoyment of the specialty, confidence of behaviour management and treatment, and stress and apprehension towards treating children. As statistical method multilevel modelling was applied.
Results: Seventeen Dental Therapy Students completed each questionnaire. A total score for each student was computed by combining all responses to questions for each particular time. The results showed a significant (multi-level modelling, $P = 0.012$) increase in positive attitude and confidence with time. Two examples were confidence with performing invasive dental procedures and dealing with a crying child. At the beginning 34.7% and 31.8% respectively were confident compared to 100% and 80% on completion of training.
Conclusion: As Dental Therapists become a vital part of the Paediatric Dental team it is essential to monitor their undergraduate training. This study showed a statistically significant increase in positive attitude and confidence in Paediatric Dentistry as their training progressed.

O23–168

The effects of different hypnotic interventions and distraction in pediatric dentistry

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Introduction: Aim of the study was to compare different hypnotic treatment methods with respect to their effects on physiological

parameters, on trance signs and on subjective well-being during dental treatment of children.

Patients and methods: 100 patients aged 5–12 years received a molar filling therapy. Permission was obtained from the ethic committee, Medical University Hannover, and subjects gave written consent on the 14th of July 2004. Three treatment groups (two types of standardized hypnotic treatment and one individualized hypnotic treatment) were compared with two control groups (dental treatment alone, dental treatment and exposure to a fairy tale presented via headphones). Changes of physiological reactions due to different treatment modes, indications of trance and subjective well-being after dental treatment were used as outcomes. Significance of differences between groups was tested using the Kolmogorov-Smirnov Test at a probability level of $P < 0.05$.

Results: Significant group differences emerged in terms of trance signs. The control groups averaged between 1.9 and 5.2 trance signs whereas the patients receiving an individual hypnotic treatment averaged 9.3 trance signs. Standardized hypnotic treatment groups showed between 5.2 and 6.95 trance signs. Physiological indicators of distress were only slightly reduced. Pulse frequency rose by 1.2 beats a minute in the control groups in the course of treatment whereas the individual hypnotic treatment showed a reduction of 7.5 beats. Group differences in subjective well-being failed to be statistically significant.

Conclusion: The results of the study support the conclusion that any method of distraction affects pediatric dental treatment positively. Individual hypnotic treatment seems to have a greater effect than standardized methods.

O23–169

Child–parent interaction in different daily- and dentistry-related situations, an explorative analysis

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Introduction: In the development of general anxiety disorders parents do play a role, but the exact role parents have in the development or maintenance of a specific fear, like child dental fear is less clear. The aim of the study was to explore to what extent the parent's way of dealing with certain general and dentistry-related situations, is associated with their child's dental fear.

Materials and methods: Two hundred and fifty children (mean age 6.48 years, SD = 1.63, 119 girls) from a specialized paediatric dental clinic were included. Their parents filled out the Children's Fear Survey Schedule-Dental Subscale (CFSS-DS) and a newly developed parent–child interaction questionnaire to score the desired parent–behaviour score. Parents gave written informed consent. The study was approved by the Medical Ethical Committee of the VUMC. Mean scores on the desired parent-behaviour profile and the two subdivisions (daily-and dentistry-related situations) were compared between the different fear groups with an analysis of variance (ANOVA).

Results: One-way ANOVA showed a significant difference between different fear groups in the total desired parent-behaviour score ($F_{2,241} = 3.34$, $P = 0.037$), this result was also shown for the daily situations ($F_{2,242} = 3.28$, $P = 0.039$). However, in general parent's mean scores were higher on the desired profile in the dentistry-related situations than in the daily situations.

Conclusion: Since parents are contextual variables during and following specific events, they need to be more aware of the consequences of their behaviour and discipline styles especially in the nondaily activities, like visiting a dentist, to reduce the risk of developing an anxiety disorder.

