

## ABSTRACT

## Behaviour Guidance

## 573 | Passive smoking and behavior and anxiety in dental clinics among children in Jeddah, Saudi Arabia

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**Background:** Passive smoking has been linked to behavioural problems, but up to our knowledge no study assessed passive smoking relationship with dental anxiety. Therefore, this study aims to assess the relationship between passive smoking and both behavioural problems and dental anxiety among children.

**Methods:** The sample of this study was collected from two centers in Jeddah city, Saudi Arabia. Inclusion criterion is 5- to 16-year-old healthy children, attending their first dental visit with no emergency complain. The questionnaire including child's general information, environmental smoking exposure, child's anxiety assessment using Abeer Children Dental Anxiety Scale (ACDAS) and dental behaviour assessment using Frankl behavioural rating scale.

**Results:** From 500 children, 337 (67.4% response rate) answered the questionnaire with 201(59.6%) having being exposed to passive smoking compared to 136 (40.4%) who were not exposed. Exposed children had a statistically significantly higher tendency to develop anxiety ( $p = 0.002$ ) and uncooperative behaviour ( $p = 0.006$ ). Generalized Linear Mode and binary regression analysis suggested a statistically significant effect of passive smoking on children's dental anxiety and behaviour ( $p = 0.05$ )

**Conclusions:** Children exposed to passive smoking reported statistically significantly higher anxiety levels and showed uncooperative behaviour in the dental clinic compared to those who were not exposed.

## 293 | Acceptance of behavior guidance techniques utilized in pediatric dentistry in Khartoum locality

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**Background:** The study investigated the acceptance of behavior guidance techniques utilized in pediatric dentistry in Khartoum locality and compared these by age, gender and dental anxiety.

**Methods:** A total of 280 children aged 8-12 years participated in this study, 140 from private clinic (A) and 140 from public clinics (B). Each child was asked to fill a questionnaire for measurement of dental anxiety using the modified childhood dental anxiety faces version and then they watched six videos of behavior guidance techniques which included tell-show-do, positive reinforcement, modeling, enhancing control, protective stabilization and voice control. After watching the videos, children were asked to express their feeling toward each technique by drawing a line of favor. Spearman rank correlation test and chi-square test were used to test behavior guidance techniques acceptability rating by age, gender and dental anxiety.

**Results:** For the two study groups, positive reinforcement was the most accepted technique (86.4%), while protective stabilization was the least accepted technique (35%). There were statistically significant differences between the two groups regarding enhancing control, modeling, protective stabilization and voice control, with higher acceptability by children from private clinics ( $p = 0.007$ ,  $p = 0.002$ ,  $p = 0.001$ ,  $p = 0.001$  respectively).

Statistical analysis showed no effect of age, gender or dental anxiety upon behavior guidance techniques acceptability ( $p = 0.05$ ).

**Conclusions:** Children age 8-12 years were generally positive about the dentist's utilization of behavior guidance techniques. Positive reinforcement was the most accepted technique, while protective stabilization was the least accepted technique.

done using parametric and nonparametric tests like ANOVA, Kruskal–Wallis, chi-square and Mann–Whitney tests

**Results:** The use of pre-emptive analgesics showed lower scores of pain compared to the placebo. These findings were irrespective of age, weight, gender of the child, and the number of teeth extracted in the study groups. Additionally, ibuprofen paracetamol combination drug group exhibited lower pain scores ( $p$  0.05) compared to ibuprofen and paracetamol drug groups when used separately.

**Conclusions:** Preoperative use of ibuprofen and paracetamol combination and ibuprofen alone may provide a better pre-emptive analgesic effect as compared to paracetamol alone in paediatric patients for the primary tooth extraction.

### 619 | Reliability of different pain scales used for assessment of dental pain in children using mobile application: A pilot study

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**Background:** The study has been aimed to evaluate and compare the reliability of different pain assessment scales namely, Wong Baker Facial Pain Rating Scale, EMOJI Pain Scale and indigenously made GIF Pain Scale in children aged 4–6 years.

**Methods:** The pilot study included 13 children aged 4–6 years with a Frankl Behaviour Rating of score 3(positive) requiring dental treatment under local anesthesia. After infiltration local anesthesia, each child along with two independent observers were asked to mark the response of current pain on Wong Baker Facial Pain Rating Scale, EMOJI Pain Scale and GIF Pain Scale. Reliability of the pain scales was assessed based on similar responses given by all three individuals. Reliability analysis was done using Cronbach's Alpha value.

**Results:** GIF pain scale was most reliable followed by Wong Baker's Facial Pain Rating Scale and Emoji Pain Scale, respectively.

**Conclusions:** GIF pain scale can be successfully used in regular clinical practice for the assessment of pain in children as they can easily relate to the emotions portrayed through animations. The study with a larger sample size is still going on.

### 1985 | Breastfeeding duration among babies under two years of age born at the University Hospital of Brasília, Brazil

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**Background:** The World Health Organization (WHO) recommends exclusive breastfeeding until 6 months of age and its maintenance for up to 24 months or more since it promotes numerous benefits. The aim of the study is to evaluate the duration of breastfeeding until 2-year-old of babies in Brasília, Brazil.

**Methods:** Data were collected from a cohort study of babies that was born from August 2017 to July 2018 at the University Hospital of Brasília. During the 2-year follow-up appointment, a questionnaire about breastfeeding information was applied to the parents. Data were tabulated, and a descriptive statistical analysis was performed.

**Results:** Of the 130 babies evaluated, the mean age ( $\pm$  SD) was 24.18 ( $\pm$  0.61) months and 50.8% were girls. The prevalence of exclusive breastfeeding for the first 6 months of age was 47.6%. The average of total breastfeeding duration ( $\pm$  SD) was 16.62 ( $\pm$  8.31) months. In 28.4% of the babies, the weaning happens before completing the first year of life and only 36.1% of the babies continue to be breastfed until 2-years-old. Reasons for winning reported by the mothers were lack of support and appropriate information (53.1%).

**Conclusion:** The prevalence and the average of breastfeeding were low; it is important to reinforce the role of the health professional in guiding and supporting breastfeeding.

### 1470 | Paradigm shift in behaviour guidance techniques: In autism spectrum disease

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**Background:** Behavior guidance techniques aim at alleviating anxiety, nurturing a positive dental attitude and performing oral health care efficiently. Innovations in behaviour guidance techniques facilitate a personalized treatment approach for patients with autism spectrum disease.

**Literature review:** Behavior guidance of patients requires a thorough knowledge of the individual's behaviour profile. Many newer behaviour guidance techniques have been

introduced, such as sensory adapted dental environment, animal assisted therapy, picture exchange communication systems, applied behaviour analysis, memory restructuring, non-verbal communication, desensitizing to dental settings, analytical behavior treatment, and many others that are more apt for patients with limited verbal communication skills.

**Conclusions:** This review highlights the newer behaviour guidance techniques in order to acquaint health care providers with these techniques and aid them in clinical decision making.

### 365 | Effectiveness of child-centered distraction in the management of a child's dental anxiety during invasive dental procedures

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**Background:** The study evaluated the efficacy of child-centered distraction (CCD) in alleviating dental anxiety in children using three techniques during invasive dental procedures.

**Methods:** After obtaining Institutional Ethical Committee approval, sixty children (40 boys and 20 girls), aged 7 to 11 years, were randomly allocated into three groups: Group 1- Mobile video games (VG), Group 2- Virtual reality (VR), and Group 3- Mobile cartoons (MC), respectively, during the treatment sessions. The anxiety of the children was assessed using physiologic measure (heart rate) at three different time points, i.e., before, during, and after the procedure, whereas RMS pictorial scale was employed as a subjective measure before and after the procedure. Kruskal-Wallis ANOVA and Wilcoxon Sign Rank test were used to analyze the RMS Scores, and repeated measures of ANOVA were used to test the mean difference of pulse rates.

**Results:** On intergroup comparison, there was no statistical difference among the three groups before commencing the treatment ( $p$ -value  $\leq 0.001$ ). But, a statistical difference in all the groups ( $p$ -value  $\leq 0.001$ ) was evident after instituting the distraction techniques. Amongst all the three groups, a significant reduction in anxiety scores was elicited by the children in group 1.

**Conclusion:** This study has attempted to enhance the salience of distraction techniques in tumbling a child's dental anxiety. Involving the child in decision-making while using distraction techniques has a foremost impetus in most children, instilling a new positive attitude towards the dental procedures.

### 354 | Impact of parental presence at chairside on children's behaviour during dental visits

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**Background:** This study examined the impact of parental presence at the chairside on children's behaviour during dental visits.

**Methods:** This quasi-experimental study involved an age-matched sample of children assigned to dental care with parent present chairside (test group) or without parent present chairside (control group) during the first dental visit. Children's behaviour was rated by a masked trained assessor via the Sarnat Behaviour Scale (SBS) on a 5-point Likert scale and the FLACC Behavioural Discomfort/Pain Scale (possible range of score 0-10). Furthermore, children pulse rate was monitored, and children rated their dental anxiety by the Vernham Picture Test (VPT). The age and gender of the child were recorded, as was the type of dental treatment.

**Results:** Assessments were conducted at 260 dental visits (130 test and 130 control appointments). The mean SBS scores were 1.5 (SD 0.8), and the mean FLACC scores were 2.3 (SD 1.9). There was a strong correlation between SBS scores and FLACC scores ( $r$  0.8,  $p$ 0.001). Bivariate analyses identified that the chairside's parental presence was associated with SBS scores ( $p$  = 0.002) and FLACC scores ( $p$  = 0.001). Controlling for child's age and gender, type of dental treatment, pulse rate changes and changes in child's rating of dental anxiety (VPT), parental presence at chairside remained significantly associated with SBS scores ( $\beta$  0.2, 96%CI 0.1-0.4,  $p$  = 0.003) and with FLACC scores ( $\beta$  0.7, 96%CI 0.3-1.2.4,  $p$ 0.001).

**Conclusions:** Disturbance in child behaviour during dental visit varied but was generally positive. Parental presence chair side was associated with improved behaviour.