

#OPD 10.15 Improvement of children's behaviour using Entonox during the dental treatment



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Aims: To assess children's behaviour during dental treatment using Entonox.



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|-----------------------------------|--------|
| 6-12 aged self administration ISE | p=0.03 |
| 3-6 aged self administration ISE | |

Methods: A group of 86 children referred to the Department of Paediatric Dentistry due to uncooperativeness was recruited for study. Inclusion criteria: ASA (Physical Status Scale) score I, II, Frankl behaviour rating scale (FSB) score ≥ 2 during initial visit, no medical contraindications for Entonox administration (ISE), parental informed consent. The study sample characteristics: 46 boys, 40 girls aged 3-12 yrs. FSB score was recorded during initial visit, dental treatment and follow-up visit (3 months later). The 4-grade scoring was used for assessing children's self-management of inhalation, namely as easy, neutral, difficult and unacceptably difficult. The following variables were recorded: the patient's age and sex, new vs. established ones, fillings vs. extractions, Entonox-naive vs. Entonox-experienced ones, Entonox-naive vs. other conscious sedation experienced ones, absence/presence of amnesia after treatment. Chi-square test at the 5% level of significance was applied for calculation.

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| boys | p=0.1 |
| girls | |

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|---------------------------------|--------|
| 6-12 yr-olds' behaviour changes | p=0.01 |
| 3-5 yr-olds' behaviour changes | |



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|------------------|--------|
| new patients | p=0.37 |
| established ones | |

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|-----------------|--------|
| ISE-experienced | p=0.02 |
| ISE-naive | |



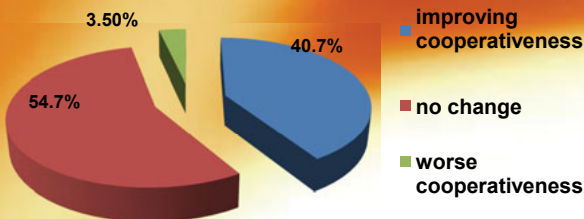
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| only restoration | p=0.78 |
| only extraction | |

Results: Results in individual parameters are presented in better-worse order as follows. 6-12 yr-olds managed self-administration of Entonox easier than 3-6 yr-olds. Behavioural change between the initial visit and follow-up visit: better cooperativeness 35 (40.7%), no change 47 (54.7%), worse cooperativeness 3 (3.5%). Differences in behaviour score: 3-6 yr-olds vs. 6-12 yr-olds: p=0.01, boys vs. girls: p=0.10, new patients vs. established ones: p=0.37, Entonox-experienced patients vs. Entonox-naive ones: p=0.02, ones experienced with other conscious sedation vs. Entonox-naive patients: p=0.33, restorative treatment vs. extractions: p=0.78, amnesia in children treatment-naive vs. treatment-experienced ones: p=0.003.

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|--------------------------------------|--------|
| other conscious sedation experienced | p=0.33 |
| ISE-naive | |



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|---|---------|
| frequency of amnesia in treatment naive | p=0.003 |
| frequency of amnesia in treatment experienced | |



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Conclusions: Entonox in 6-12 yr-old children and repeated administration enhances children's cooperativeness during dental treatment and helps reduce dental fear during the follow-up visits. These findings reflect not only its clinical benefits, but also significant public health benefits for the dental treatment of uncooperative children.

