



NON-PHARMACOLOGICAL BEHAVIOUR MANAGEMENT

a narrative review

Soares AD, Perei ra JL, Rosa SM, Xavi er MT, Costa AL
Faculty of Medicine, University of Coimbra



Introduction

Behaviour management is essential in paediatric dentistry, basing itself on a set of techniques that improve communication, reduce anxiety and/or eliminate unwanted behaviour. If the child's behaviour is unstable, it may compromise the effectiveness of the treatments provided and the safety of all stakeholders. Establishing a line of communication - a cornerstone of the dentist-patient relationship - underpins specific behavioural management techniques, such as tell-show-do, voice control, positive reinforcement, distraction and desensitization. Selecting the specific technique(s) must then reflect the individual child's profile. A child's behaviour during paediatric dentistry is strongly influenced by age, personality, cognitive and motor development, bad life experiences, attitude and expectations of responsibility involved and the complexity of the treatment to be performed.

Aim

Performing a critical literature review of the different non-pharmacological behaviour management approaches used in pediatric dentistry.

Methods

A search was performed using PubMed/Medline with the keywords "behaviour", "child", "basic communication techniques" and "pediatric dentistry" covering the last 10 years of English language publications with an indexed abstract.

Results

The criteria used returned a total of 119 articles, 20 of which were selected following a process of content analysis on the available abstract. Most articles were narrative reviews or clinical studies. An additional 5 articles were added following a process of cross-referencing.

Based on the literature, paediatric patients can be classified according to their behaviour:

Cooperative:

- . Relaxed
- . Not unduly concerned
- . Show an understanding of the information given
- . Easily adapt to new situations
- . Quickly and easily build empathy

Potentially cooperative:

- . Uncontrolled (visible from uncontrolled crying without apparent reason)
- . Tense-cooperative (children which are anxious but normally accept the treatment proposed)
- . Timid (introverted, do not communicate)
- . Challenging or defiant (refuse treatment, want to "take control")
- . Passive resistance (avoid visual contact and refuse the treatment)

Lacking in cooperative ability:

- . Emotionally immature
- . Unlikely to understand the information they receive
- . Children with special needs in the surgery



Medical history / Family influences on child behavior

Cooperative

Potentially cooperative

Lacking in cooperative ability

Verbal and non-verbal communication: Consists of communicating using voice, facial expressions, body language and physical and visual contact.

Tell-show-do: A technique which consists of verbally explaining what will happen, using language appropriate for the level of understanding of the patient (tell), showing the visual, audible, olfactory and tactile aspects of the procedure to be performed (show), followed by performing the procedure (do).

Control: Hands some degree of control over the dentist's behaviour to the child, making the dentist stop when a signal is given which must be respected immediately.

Positive reinforcement: Uses rewards (social and non-social) for desired behaviours to encourage that they are repeated.

Uncontrolled

Imitation: The child attends an appointment of another child or the parents (which they can identify with) who show acceptable behaviour.

Distraction

Voice control: A controlled change in the volume, tone or rhythm of the voice, designed to influence, direct or change the behaviour of the child.

Tense-cooperative

Verbal and non-verbal communication

Tell-show-do

Distraction: Designed to distract the attention of the child from procedures which are likely to be unpleasant.

Timid

Distraction

Positive reinforcement

Challenging or defiant

Voice control

Parent presence/absence: The presence or absence of the parent can sometimes be used to gain cooperation in the treatment. This decision is made after evaluating the expectations/wishes of the parents and the needs of the child, focusing on providing the best treatment possible.

Passive resistance

Tell-show-do

Voice control

Sedation / General anaesthesia

Conclusions and clinical implications

Although behaviour management represents a key aspect of pediatric dentistry, there is a need to develop additional studies providing further evidence regarding the level of effectiveness of most clinically recommended techniques. Mastering these techniques leads to effective communication and helps alleviate the fear and anxiety experienced in the surgery. The majority of children can be treated using basic techniques of non-pharmacological behaviour management, while the benefits of using more complex techniques must be weighed against the potential risks.

References

1. The British Society of Paediatric Dentistry. Non-pharmacological behavior management. C Campbell, F Soldani, A Busatti-Naudi and B Chadwick. Revised 2011. Disponible em: <http://www.bsdp.co.uk/Default.aspx?tabid=124>. 2. Veerkamp JSM, Wright GZ. Children's Behavior in the Dental Office. In: Wright GZ, Kupietzky A. Behavior Management in Pediatric Dentistry. 2nd ed. Wiley Blackwell; 2014. p. 23-33. 3. American Academy of Pediatric Dentistry. Guideline on Behavior Guidance for the Pediatric Dental Patient. Reference Manual 2014; 36 (6): 179-191. 4. Roberts JE, et al. Review: Behaviour Management Techniques in Paediatric Dentistry. European Archives of Paediatric Dentistry 2010; 11(4): 166-174. 5. Gupta A, et al. Behaviour management of an anxious child. Stomatologia Baltica: Dental and Maxillofacial Journal 2014; 16: 3-6. 6. Wright GZ, Kupietzky A. Non-Pharmacologic Approaches in Behavior Management. In: Wright GZ, Kupietzky A. Behavior Management in Pediatric Dentistry. 2nd ed. Wiley Blackwell; 2014. p. 63-91. 7. Welbury et al. Ocktopediatrics. 3rd ed. Guanabara Koogan; 2007. 8. Malamed et al. Sedation: a clinical guide to patient management. 5th ed. Mosby Elsevier; 2010. 9. American Academy of Pediatric Dentistry. American Academy of Pediatric Dentistry. Guidelines on Use of Nitrous Oxide for Pediatric Dental Patients 2011-2012. Disponible em: www.aapd.org/medial/Policies_Guidelines/2_Nitrous.pdf. 10. Okeer K, Mantoni DJ. Contemporary behavior management techniques in clinical pediatric dentistry: out with the old and in with the new? J Dent Child (Chic). 2015;82(1):22-8. 11. Mejlert IA, et al. A systematic map of systematic reviews in pediatric dentistry—what do we really know? PLoS One. 2015 Feb 23;10(2):e0117537. 12. Levering NJ, et al. Current status of nitrous oxide as a behavior management practice routine in pediatric dentistry. J Dent Child (Chic). 2011 Jan-Apr;78(1):24-30. 13. Wilson S, et al. An analysis of behavior management papers published in the pediatric dental literature. Pediatr Dent. 2005 Jul-Aug;27(4):331-8. 14. Eaton JJ, et al. Attitudes of contemporary parents toward behavior management techniques used in pediatric dentistry. Pediatr Dent. 2005 Mar-Apr;27(2):107-13. 15. Ström K, et al. Dentist: use of behavioural management techniques and their attitudes towards treating paediatric patients with dental anxiety. Eur Arch Paediatr Dent. 2015 Mar 10; 16. Srinivasa B, et al. Acceptability and Efficacy of Commercial Oral Preparation of Midazolam for Brief Painful Procedure: A Randomised Double Blind Clinical Trial. Int J Clin Pediatr Dent. 2014 Sep-Dec;7(3):153-6. 17. Henrich HS, et al. Managing dental fear and anxiety in pediatric patients: A qualitative study from the public's perspective. Pediatr Dent. 2014 Jan-Feb;36(1):29-33. 18. Boksa V, et al. Parental acceptance of behaviour management techniques used in paediatric dentistry and its relation to parental dental anxiety and experience. Eur Arch Paediatr Dent. 2014 Oct;15(5):333-9. 19. Amaraiah NA, et al. Emotional intelligence subscales: are they correlated with child anxiety and behavior in the dental setting? J Clin Pediatr Dent. 2013 Fall;38(1):61-6. 20. Peretz B, et al. Pattern of parental acceptance of management techniques used in pediatric dentistry. J Clin Pediatr Dent. 2013 Fall;38(1):27-30. 21. Jungten LM, et al. Factors influencing behavior guidance: a survey of practicing pediatric dentists. Pediatr Dent. 2013;35(7):539-45. 22. Goetha Priya PR, et al. Comparison of behavioral response to caries removal methods: a randomised controlled cross over trial. J Indian Soc Pedod Prev Dent. 2014 Jan-Mar;32(1):48-52. 23. de Castro AM, et al. Behavior guidance techniques in Pediatric Dentistry: attitudes of parents of children with disabilities and without disabilities. Spec Care Dentist. 2013 Sep-Oct;33(5):213-7. 24. Wilson S. Management of child patient behavior: quality of care, fear and anxiety, and the child patient. Pediatr Dent. 2013 Mar-Apr;35(2):170-4. 25. Elango I, et al. Parental acceptance of pediatric behavior management techniques: a comparative study. J Indian Soc Pedod Prev Dent. 2012 Jul-Sep;30(3):195-200.