

# Spa-Inspired Oral Care: A new approach in paediatric dentistry

### PRESENTATION

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*his column will walk us through technological developments, innovations in materials and tools, as well as new operative trends in paediatric dentistry of today and tomorrow. The goal, rather ambitious, is to explore, with a very practical approach and a broad clinical vision, what "avantgarde" actions we can implement to take care of our little patients. We want to promote solutions, not only for treatment and achievement of specific therapeutic goals, but for the well-being of children and their families, where more often than not, "how" is more important than "what".*

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### ABSTRACT

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**Background** The aim of this paper is to illustrate a different way to take care of our little patients, starting from creating child-oriented environmental conditions and proceeding using a specific comfort technique in paediatric dentistry.

**Case reports** This concept of treatment arises from the inseparable relationship between body and psyche. It starts with instructions aimed at informing parents or caregivers not to prepare the child for the visit but to explain the child that he/she will be taken care in new ways. This is accomplished by approaching the child in an original setting without the traditional dental chair, and that can be the same dedicated room in which we will be able to provide the first care, as a part of a customised treatment, which does not consider only the clinical outcomes.

**Conclusion** Spa-inspired oral care is the name we chose to describe this new way to treat our little patients, putting them at ease with a dedicated environment, characterised not only by drawings hung on the walls, but also by lights, music, videos and scents. Importance is also given to the choice of words, the dental team appearance, and instruments that allow the application of treatment and comfort techniques tailored to them, where 'how' can be more important than 'what'.

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### KEYWORDS

SPA-Inspired oral care; Relative analgesia; Ozone therapy; Bioactive materials; Intraoral scanner; Digital paediatric orthodontics.



FIG. 1



FIG. 2A



FIG. 2B



FIG. 2C



FIG. 3

FIG. 1 First dental visit in the waiting room dedicated to children.

FIG. 2A First dental visit of two brothers on a "non-dental chair" suitable for both. FIG. 2B In the same room we can use a child-oriented tell-show-do approach and first care. FIG. 2C Retractable dental unit with hidden instruments for a "non-traumatic" dental approach to the child.

FIG. 3 Use of a wireless intraoral scanner to approach a 3-year-old child, engaging the whole family with a new way of communication and treatment.

## Introduction

The first dental visit of a child is crucial, and ideally it should not be carried out during emergencies but always as part of a preventive approach [Tripodi et al., 2011; Paglia, 2019; Colombo et al., 2019; Severino et al., 2021] that starts with verbal explanations by the receptionist, but also using video and written information sent to the family using a smartphone or by e-mail, as if it was a package insert of a drug, and ends with updated references as scientific support to the instruction given. This information is aimed at explaining to the parents/caregivers not so much the type of care provided but how the child will be welcomed together with his family, who is advised not to prepare the child for the visit, in order not to involuntarily transmit any non-positive feelings that may derive from previous negative experiences. It is important to immediately transmit positive expectations, starting from the information, which must not be technical but mainly regarding the approach and environmental conditions. Indeed, we tell parents to have their children call us by our first name, not "doctor or dentist". This way, they will be taken care by friends. Creating child-oriented environmental conditions, means not to use the traditional dental chair for the first visit, but the waiting room (Fig. 1) or a dedicated room (Fig. 2a, 2b, 2c) in which provide the first care, which should almost never be interventional, as a part of a customised treatment that uses words, gestures and manners as therapeutic tools and precedes the application of specific comfort techniques [Beretta and Federici Canova, 2017, 2020; Libonati et al., 2018], which today cannot be ignored, as for example relative analgesia [Arcari et al., 2008, 2018], ozone or intraoral scan (Fig. 3) [Beretta et al., 2021]. This concept is even more important when the first visit concerns a child who comes from previous non-positive experiences and our duty is to do everything to rapidly change his/her attitude and that of the parents.

## Clinical report

This concept can be better understood observing the case of Filippo, a 3-year-old child that came to our attention accompanied by his mother, after a recent not good experience, where the dentist tried to treat a small caries on a lower vital second deciduous molar during the first visit, without the use of any comfort technique but with an immediate traditional interventional approach, not suitable for a child his age, and rapidly losing his cooperation [Cianetti et al., 2017].

We welcomed Filippo, after having already sent the video and written information to his mother, in the white-orange room (each room in the dental office is named after a colour), where cartoons were projected on a large screen, and we visited him as he lay on his mother's lap (Fig. 4a, 4b), who in turn was comfortably seated on a sofa. This setting was completely different, in order not to make him recall the previous experience. This allowed us to immediately change Filippo's propensity to have his teeth examined, acquiring his trust as well as that of his mother. Starting with our specific behaviour and words, that are already a sort of care, we let Filippo try the comfortable use of ozone for the treatment of caries without the use of rotating instruments and without producing aerosol. This was the first step of the path that allowed us to take care of him in a way suitable to his age.

The second case we present is that of Pietro, a special needs 6-year-old child, very sensitive to noises, such as that produced by aspirators and rotary instruments [Ferrazzano et al., 2020], that the previous dentist started treating for a distal caries of the vital tooth 7.4, but was unable to complete the treatment due to the child's lack of cooperation. We approached Pietro as explained before (Fig. 5), first of all providing the mother with correct oral hygiene and nutrition instructions and then performing, in the same room of the first visit, a cycle of 4 comfortable ozone applications (one per



FIG. 4A



FIG. 5



FIG. 6



FIG. 4B



FIG. 7



FIG. 8

FIG. 4A Filippo on the lap of his mom, who was initially concerned about her child's previous reaction. FIG. 4B The mother is happy for Filippo's behaviour, thanks to the child-friendly approach during the visit; we used a plastic smooth mirror and a microbrush instead of metal instruments. FIG. 5 The role of the dental team is crucial during the first visit; when we speak with parents our team contributes to the entertainment of the children. FIG. 6 Setting for ozone, no aerosol, and no noises during treatment for Pietro while he watches cartoons. FIG. 7 Use of relative analgesia and ozone for the ART restoration technique. FIG. 8 Spa-Inspired Oral "taking" Care.

week for a month) on tooth 7.4, followed by a remineralising gel to stop the progression of caries, without aerosol and aspirators (Fig. 6). This efficient and safe approach allowed Pietro to gain confidence in himself and to trust us. This allowed us to perform the restoration of the tooth during a second visit with the aid of relative analgesia (Fig. 7), selective manual removal of caries, ozone and bioactive materials [Tolidis et al., 2016; Burrer et al., 2022], according to the principles of a modern ART Technique (Atraumatic Restorative Treatment) [Frencken, 2017], addressing not only to the tooth but the child for his uniqueness.

## Discussion and conclusion

We have chosen the name "Spa-inspired oral care", borrowing from the latin term *Salus per Aquam* (health through water), to describe this approach to our little patients aimed at putting them at ease. Therefore children are the center of our attention as individuals, not only regarding their dental problem, in a dedicated environment characterised by drawings on the walls, relaxing lights and music, videos, cartoons and natural scents different from that of disinfectant you can find at the traditional dental office. Also important is the careful selection of words, and our appearance and instruments, that allow the application of therapeutic and comfort techniques tailored to them, where 'how' we do is more important than 'what' we do, to comfortably accommodate the whole family. As mentioned earlier, prevention should be our goal, in a much broader and easier concept that embraces the whole being of the child, considering his/her emotivity and his and his family's health. This approach can also be employed for emergency or more complex treatments, both in the private and in the public offices. However, we should always consider first the child and then the mouth, as well as first the prevention and then the cure, indeed, taking care of the child as a whole (Fig. 8).

## References

- › Arcari S, Ferro R. Preschool children and relative analgesia: satisfaction grading through a verbal questionnaire. *Eur J Paediatr Dent* 2008;9(1):18-22.
- › Arcari S, Moscati M. Nitrous oxide analgesic effect on children receiving restorative treatment on primary molars. *Eur J Paediatr Dent* 2018;19(3):205-212.
- › Beretta M, Federici Canova F. A new method for deep caries treatment in primary teeth using Ozone: a retrospective study. *Eur J Paediatr Dent* 2017;18(2): 111-115.
- › Beretta M, Federici Canova F, Moscati M, Campanella V, Gallusi G. State-of-the-art on MIH. Part. 2 MIH clinical management using ozone. *Eur J Paediatr Dent* 2020;21(2):163-166.
- › Beretta M, Federici Canova F, Gianolio A, Mangano A, Paglia M, Colombo S, Cirulli N. ZeroExpander: Metal-free automatic palatal expansion for special-needs patients. *Eur J Paediatr Dent* 2021; 22(2):151-154.
- › Burrer P, Attin T, Par M, Tauböck TT. Bioaktive Restaurationsmaterialien in der Zahnerhaltung [Bioactive materials in conservative dentistry]. *Swiss Dent J* 2022 Feb 7;132(2):122-123.
- › Cianetti S, Paglia L, Gatto R, Montedori A, Lupatelli E. Evidence of pharmacological and non-pharmacological interventions for the management of dental fear in paediatric dentistry: a systematic review protocol. *BMJ Open* 2017;7(8 ):e016043.
- › Colombo S, Gallus S, Beretta M, Lugo A, Scaglioni S, Colombo, Paglia M, Gatto R, Marzo G, Caruso S, Paglia L. Prevalence and determinants of early childhood caries in Italy. *Eur J Paediatr Dent* 2019;20(4):267-273.
- › Ferrazzano GF, Salerno C, Bravaccio C, Ingenito A, Sangianantoni G, Cantile T. Autism spectrum disorders and oral health status: review of the literature. *Eur J Paediatr Dent* 2020 Mar;21(1):9-12.
- › Frencken JE. Atraumatic restorative treatment and minimal intervention dentistry. *Br Dent J* 2017 Aug 11;223(3):183-189.
- › Libonati A, Nardi R, Gallusi G, Angotti V, Caruso S, Coniglione F, Marzo G, Mattei A, Tecco S, Paglia L. Pain and anxiety associated with Computer-Controlled Local Anaesthesia: systematic review and meta-analysis of cross-over studies. *Eur J Paediatr Dent* 2018 Dec;19(4):324-332.
- › Paglia L. Oral prevention starts with the mother. *Eur J Paediatr Dent* 2019; 20(3):173-173.
- › Severino M, Caruso S, Ferrazzano GF, Pisaneschi A, Fiasca F, Caruso S, De Giorgio S. Prevalence of Early Childhood Caries (ECC) in a paediatric italian population: An epidemiological study. *Eur J Paediatr Dent* 2021;22(3):189-198.
- › Tolidis K, Boutsiouki C, Gerasimou P. Comparative evaluation of microleakage of a carbomer/fluoroapatite-enhanced glass-ionomer cement on primary teeth restorations. *Eur J Paediatr Dent* 2016;17(3):227-233.
- › Tripodi D, Filippakos A, Piattelli A, D'Ercole S, Perrotti V. Wear of dental sealing materials using the replication technique. *Eur J Paediatr Dent* 2011 Jun;12(2):95-8.