As per the American Academy of Paediatric Dentistry (AAPD), dental care is considered to be medically necessary in order to prevent and eliminate orofacial diseases, infections and pain. Anxiety towards dental appointments has always been considered natural and unavoidable. Keeping in mind this nature of apprehension time and time again, several methods of behaviour guidance have been introduced in order to alleviate anxiety, provide dental treatment safely and instil a positive dental attitude for lifetime.

What is dental fear?

Dental fear is defined as the specific anxiety which is the predisposition for a negative experience in the dental surgery. Dental fear in simple terms is described as the fear that any child would feel towards its dentist, dental treatment or dental appointment in general. Dental fear has been known to have several roots of origin.

Parental influence is one of the many factors that influence children's behaviour at the dental office. A positive parental attitude established in early life can directly bring in a positive attitude for the kids. According to the AAPD guidelines, every child should have the first dental check-up at the age when the first tooth erupts. This establishes a first contact with the dental healthcare provider. Early appointments also help to prevent the onset of a dental disease, thereby decreasing the treatment needs and opportunities for negative experiences.

Parents who have had multiple dental problems and negative experience at the dentist generally transpire these fears onto the kids subconsciously and sometimes knowingly. When kids finally arrive at the dental office, they have a pre-formed image of the experience which then decides their level of cooperation.

Types of dental fear

What gets measured, gets modified and corrected. Keeping the same principles in mind, dental fear has been graded by different rating scales. The most commonly used in the common practice is the Frankl Behaviour Rating Scale. The Frankl Behaviour Rating Scale grades fear as follows:

1. Definitely negative: refuses treatment, cries forcefully, extremely negative behaviour associated with fear.
3. Positive: accepts treatment, can become uncooperative if experiences something negative.
4. Definitely positive: unique behaviour, looks forward to the treatment.
Another commonly used behaviour rating method is by following clinical gradation:
- Cooperative
- Uncooperative
- Apprehensive
- Fearful
- Obstinate

The American Academy outlines several ethical behaviour management techniques. Apart from using these methods of behaviour management, one of the basic principles that can be kept in mind is effective and positive result oriented communication. The first step to gain the child’s cooperation is to develop a proper rapport in the first appointment. We generally use a special child friendly language in order to gain the attention and interest of the child in concern. This special language of paediatrics is referred to as “euphemisms”.

Commonly used euphemisms are:
- Laser: magic popping light
- Needle: sleepy juice
- Numbness: magic balloon
- Cotton roll: cotton pillow
- Handpiece: tickle brush
- Suction: vacuum cleaner/sucker/Mr. Thirsty
- X-ray: marshmallow picture
- Mouth prop: tooth clip

Dental fear
Fear is one of the most constant limitations in the paediatric practice. Children’s fear can sometimes have a rational explanation and sometimes occur for incomprehensible reasons. The solid foundation of a rapport between child and paediatric dentist depends on the actual acknowledgement of the child’s fear. When we know that fear exists, the best way to overcome is to face it and resolve the cause.

Children’s fear of dentistry is generally related to the words, tools, idea and concept of treatment. By keeping the first appointments only for check-up, X-rays and cleaning, we are able to understand the treatment needs, and the coping ability of the child. The child is made aware of what the next steps can be in the language of euphemisms. This way they go with the eye opener of awareness of what to expect in the next appointment. In case of long treatment appointments, generally the mornings are preferred as children are more fresh and receptive to instructions then.

Phobia of needles
Children generally associate dental appointments with vaccination appointments with doctors. They are highly phobic about needles. Any treatment can be a nightmare with the underlying fear of needles. The contemporary form of dentistry is laser dentistry, which is needle free and child friendly.

How does laser replace needles?
In case of fillings, the need for numbing is completely ruled out as the Erbium laser is a non-contact procedure. Since there is no actual contact of tooth and laser, there is no vibration or pressure on the tooth as in case of drilling. This exempts the need for anaesthesia.

In a pre-procedural appointment, when the kids are informed about playing Star Wars with sugar bugs and not using any "injections", their fear factor gets significantly reduced. This helps them to overcome the picture of dentistry as presumed before.

During the procedure, no numbing can help children to remain relatively relaxed, get the procedure done and leave the practice after a short appointment with no sensation of numbness afterwards. They can eat fifteen to twenty minutes afterwards and parents do not have to worry about traumatic lip or cheek bites.

What procedures can be done without anaesthesia?
Regular restorative dentistry including all types of cavities can be done easily without any need for injections. Pulp therapy such as pulpotomy, direct or indirect pulp-capping procedures and pulpectomy can be performed with intrapulpal anaesthesia after pulp exposure. In cases, where the child does exhibit apprehensive behaviour, minor infiltrations can be used.

Laser sealants have become quite popular in the practice with a success rate much higher than the normal sealants. The Erbium laser is used at Bond prep: 3.35 Hz. This causes a slight enamel abrasion in order to allow for a better mechanical bond between seal and tooth surface. The normal cover period that I consider in the practice for seals done this way is about two years. The Erbium laser also helps to anaesthetise teeth externally. This itself can help to take away the initial fear and get the procedure started.
How does this benefit appointment durations?
The appointment durations are much reduced as there is no waiting period for anaesthesia. In addition, multiple quadrant dentistry can be performed at the same time. One appointment can be easily followed by further consultations if needed with other specialists as the numbness barrier is removed.

How does laser increase the value of time and chair occupancy?
Since the chairside time per patient can be reduced with the use of laser, this certainly increases the value of the practice as more patients can be accommodated in the fixed duration of hours.

Parental acceptance of laser vs drill
From the private practice point of view, lasers are accepted in more than 90% of all cases when proposed as treatment alternative. The cost difference between a conventional drill and laser have been kept at about 35%. This enables more and more families to avail the benefits of lasers for their little ones.

Cost benefit ratio
Even though lasers have been always looked up as an expensive and add-on tool in many private practices, the advantages of lasers do certify the actual return on investment from the very first year of the investment. This increases the overall profit margin for the company and thereby making lasers the all round win situation for investor, dentist and certainly for the patient.

Conclusion
In current times, we have come a long way doing painless, needle-free dentistry. The bottom-line of non-threatening and non-invasive dental care nevertheless remains at high-end prevention. The very fact that the huge segment of child population does have healthy teeth, does signify that dental disease can be well avoided. The regular presence of children in the practice, dietary advice and both primary and secondary levels of defence should be looked at.

Literature

Kurz & bündig