**pediatric dentistry** 

**sheet 4**

**Behavior management techniques :**

There are two different categories 🡪 the pharmacological techniques and the non-pharmacological techniques, the pharmacological ones include the sedation and the General anesthesia, now we will discuss the non-pharmacological ones.

When the non-pharmacological techniques do not work we use the pharmacological ones.

They aim to manage the behavior, improve the communication and eliminate the inappropriate behavior.

They are different techniques, but they might be used in combination:

1/ Preparatory information. 2/ Non-verbal communication 3/ voice control.

4/ Enhancing control. 5/ modeling. 6/ Desensitization

 7/ negative reinforcement. 8/ Tell-show-do.

Now we will discuss some of the mentioned techniques.

**1- Preparatory information:**

It aims to prepare the child and his parents (especially parents what to expect in the clinic, this process reduces the Anxiety and ends up with a better behavior.

It can be in two forms: either a letter/email or discussion and explanation about the procedure at the initial telephone call.

Such letters will inform the family about what will happen at the visit, give advice about preparing the child and reduce parental anxiety(most important).

Parental anxiety is closely associated with children behavior .strategies that aims to decrease parental anxiety may also improve children’s behavior. Helping the parents to understand what will happen and how to prepare the child and that will improve the treatment.

Studies were done and they found that children, whose families had received a letter, were more cooperative. And mothers found it to be helpful.

When a child is going to be treated under general anesthesia, a computer package is given to the parents to explain for them what to expect, types of reactions that will happen after anesthesia is given. This will reduce anxiety and improve patient’s behavior.

There are internet webpages that serve as educational tool helping the parents to be better prepared and answer most of their questions.

 **2-The non-verbal communication:**

The reinforcement and guidance of the behavior through appropriate contact, posture, facial expressions and body language. Such communication includes having a child-friendly environment and a happy, smiling team.

The objectives of the non-verbal communication: To enhance the effectiveness of other communicating management techniques by gaining and maintaining the patient’s attention.

\*the non-verbal communication may reinforce or contradict verbal signals and children are good in understanding body language.

\* Messages are conveyed by the environment as well as by individuals. Posters depicting the effect of disease aimed at adults may frighten children. The importance of non-verbal messages was confirmed by an observational study of 3- to 5-year-olds undergoing dental treatment which suggested that gentle patting of a fearful child may reduce the likelihood of such behavior continuing, while holding and restraining are more likely to increase such behavior.

It’s useful to talk to the child at eye level and to get down (physically)to his level because this will make the communication more friendly.

The 3 essential communications imparted to child patients through primarily non -verbal means:
1- I see you as an individual and I will respond to your needs as such.
2- I’m thoroughly knowledgeable and highly skilled. 3-I’m able to help you, and will do nothing to hurt you needlessly.

**3-The voice control:**

It is a controlled alteration of the voice tone to influence and direct patient’s behavior; this improves the attention and compliance of the patient as well as established authority; e.g. an abrupt change from soft to loud to gain attention of a child who is not complying. Voice control has been shown to decrease disruptive behaviors without producing long term negative effects. While reported as widely used by dentists it may, however, not be acceptable to all parents or clinicians.

The technique is useful for inattentive but communicative children. However, it is not appropriate for children too young to understand or with intellectual or emotional impairment.

**4-Tell-Show-Do(TSD):**

You tell the patient "the child" 🡪 you show him 🡪 then you start doing the procedure.

The technique is useful for all patients who can communicate. There are no contraindications.

Objectives:

1- To teach the patient the important aspect of the dental visit and familiarize the patient with the dental setting 2-shape the patient response to procedure through desensitization (listening to the handpiece more than once so that child will be familiar with) and well describe the expectations from the procedure.

And it is a well accepted technique from the parents, but pay attention to the terms used and the way you are telling, they must be consistent with the patient’s age (small child/teenager).

Tell- phase 🡪 verbal explanation of the procedure using phrases appropriate to mental level of the patient.

Show- phase 🡪 to demonstrate the visual, auditory, olfactory and tactile (vibration of low speed handpiece) aspects of the procedure, in a carefully defined, non-threatening setting.

Do- phase 🡪 must be initiated with minimal delay, without deviating from explanation and demonstration.

Important note 🡪 do not ask for permission and avoid sudden movement.

 **Dental terminology Word substitutes :**

|  |  |
| --- | --- |
| Slow speed handpiece  | Motor cycle or Mr. Ticker  |
| High speed handpiece  | Mr. Whistle or fast car |
| Local anesthesia | Sleepy juice |
| Topical local Anesthesia | Spray your teeth |
| Topical fluoride gel  | Cavity fighter |
| Water syringe | Water gun |
| Air syringe | Wind /air gun |
|  Fissure sealant | Tooth paint/nail polish |
| Suction  | Hoover |
|  |  |
| Rubber dam | Rubber raincoat |
|  |  |
|  |  |
| Rubber dam clamp | Tooth button-click |
| Rubber dam frame | Coat rack |
| Amalgam | Silver star |
| Alginate  | Pudding |
| Study model  | Statues |
| Stainless steel crown | Girl: princess crown boy: soldier’s helmet |

**5-Enhancing control**

This technique provides the patient a degree of control over their dentists' behavior through the use of a stop signal usually raising an arm .It’s not used to stop or avoid the procedure but rather influencing the way they experience it, the stop signal can be rehearsed with the dentist at the beginning of the clinic, and the dentist should respond quickly when it is used to establish trust with the child. Such signals have been shown to reduce pain during routine dental treatment and during injection.

Another example of enhancing control is the use of a timer and it is used as a brief escape from dental treatment provided in a regular fixed time schedule.

In a study the intervals were signaled by an electronic timer worn by the dentist. The study showed regular breaks from active treatment an effective means of reducing disruptive behavior in young children undergoing restorative dental treatment.

Or we can use an easier way which most of the dentist use which is counting we make the child count to a certain number then we stop and after that we precede and make the child count again.

 **6-Behavior shaping and positive reinforcement:**

Behavior shaping consists of a defined series of steps towards ideal behavior. This is most easily achieved by selective positive reinforcement. Young children may be insecure when faced with a new situation, particularly in a strange environment such as a dental surgery. They do not necessarily know how to behave or what is required of them. Children need to be guided towards a pattern of behavior that allow the treatment to be completed this requires small clear steps and it’s most readily achieved by selectively reinforcement.

So positive selective reinforcement on certain behaviors from the child can be very effective for example, “I like the way you keep your mouth open” and it’s more useful than full reinforcement (when you tell the child that he was good at the clinic today and he don’t know why ). So any behavior they do which is reinforced they will try to do it again.

Reinforcement: is the strengthening of a pattern of behavior, increasing the probability of that behavior being displayed again in the future.

Anything that the child finds pleasant or gratifying can act as a positive reinforcer e.g. stickers, badges, masks or gloves at the end of a dental appointment. (You shouldn’t bring candy or sweets as a reinforcer in your clinic).

 For example, if you give the child stickers at the end of dental appointment and you forget to do that in the next appointment, they found that anxiety will increase.

The most powerful reinforcers are social stimuli, such as, facial expression, positive voice modulation, verbal praise, approval by parent/carer in the form of a hug.

Reinforcers work best when applied directly after the appropriate behavior, be as specific as possible since specific reinforcement is more effective than a generalized approach in a dental clinic this means continuous praise at each stage from beginning to end not just a well done as they leave.

**7-Modeling:**

The technique is based on the principle that people learn about their environment by observing the behavior of others. This can be achieved by using a model preferably should be the same age, either live or by video, who exhibits the appropriate behavior in the dental environment. This technique may decrease the anxiety by showing a positive outcome following a procedure that the target child requires themselves and will also illustrate the rewards for appropriate behavior. For best effects models should be the same age as the target child, should exhibit appropriate behavior and be praised they should also be shown entering and leaving the clinic.

 But this model child should not be a super kid (he don’t feel pain while taking a nerve block and he smiles while entering and leaving the clinic).This model should be a coping child that he feels pain but he is still cooperative.

But we work in a big pool and we might see uncooperative child that can give the inappropriate model for other children.

**8-Distraction:**

This approach aims to shift the patient’s attention from the dental setting to some other situation or from a potentially unpleasant procedure to some other action.

Objectives: It decreases the perception of unpleasantness to avert negative or avoidance behavior.

Cartoons have been shown to reduce disruptive behaviors in children when combined with reinforcement, which is when children knew the cartoon would be switched off if they did not behave. Audio distraction, although proven effective for adults, has been shown to have variable success in children. Newer studies now support audio-visual glasses because it offers effective distraction through the alleviation of the unpleasantness and stress that arise during the dental procedures.

LA administrations with music or 3D video glasses distraction have an added advantage in majority of children.

Audio-visual glasses (watching Tom and Jerry) and its effectiveness during LA administration show an advantage in majority of children according to a study by Doctor Al- Esses.

Short term distracters such as diverting attention by pulling the lip as a local anesthetic is given or having patients raise their legs to stop them gagging during radiography may also be useful. Verbal distraction e.g. the dentist, who talks while administering local anesthetic, can also be effective.

**9-Systematic desensitization**:

This technique helps older individuals (mostly teenagers) with specific fears or phobias overcome them by repeated contacts which mean gradually exposing the child to the fear inducer.

Phobia is extreme fear; it’s a persistence abnormal and irrational fear of a specific thing or situation that compels one to avoid it despite the awareness and reassurance that it’s not dangerous.

A true dental phobic would not be able to even consider the prospect of attending a dental practice.

In order to deal with these patients the first thing to do is teach those patients how to relax by using several methods like the use of muscle relaxant or breathing exercises.

A hierarchy of fear-producing stimuli is constructed with patient and the patient is then exposed to them in an ordered manner, starting with the stimulus posing the lowest threat. E.g. in administering LA first the patient is taught to relax, and then we show him the needle when it’s capped then we can approach with the syringe after removing the needle cap, to make the patient feel more comfortable with it.

Systematic desensitization has two elements, firstly gradual exposure to the fear-inducing stimulus and secondly the induction of a state incompatible with anxiety. It is based on the assumption that relaxation and anxiety cannot exist at the same time in an individual.

First the patient is taught to relax and in this stage exposed to each of the stimuli and only progress to the next one when they feel able.

\*phobic patients don’t usually hear what you are trying to say, so they should relax so they can listen.

The best known method of relaxation is based on progressive muscle relaxation, usually starting with the feet and working up the body, coupled with slow controlled breathing.

The relaxation phase is critical and may take several visits to achieve. For true phobias several relaxation sessions with a psychologist or dentist who has received training in relaxation techniques may be required.

Dentist may undertake the role of the psychologist which is usually preferred.

The technique is used for a child who can clearly identify their fear and who can verbally communicate (mostly teens).

G☺☺D luck

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