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Non-pharmacological Management Methods

Psychologists have developed many techniques for modifying patients' behaviors by using the principles of learning theory. These techniques are called **behavior modification**. Usually they are thought about in conjunction with dentist-patient intra operator relationships.

Various techniques are present:

1. Preappointment behavior modification
2. Behaviour modification techniques: can be classified as follows:

A) Communicative management

Voice control

Non-verbal communication

Desensitization

Tell-Show-Do

Modelling

Contingency management (positive and negative reinforcement)

Distraction

B) Hand-Over-Mouth (HOM/Aversive conditioning)

C) Patient immobilization

Immobilization by dentist/staff/parents

Physical restraints with immobilization devices

Preappointment Behavior Modification

It is aimed at preparing the child for a dental visit so **it refers to** anything that is said or done to have a positive influence on the child's behavior **before** the child enters a dental operatory. The merit of this strategy is that it prepares the pediatric

patient and eases the introduction to dentistry. It has received a great deal of attention because the **first dental visit is crucial** in the formation of the child's attitude toward dentistry. If the first visit is pleasant, it paves the road for future successes.

Various methods used for pre appointment behavior modification **includes** audiovisual aids, letters, films and videotapes. Children cure explained the importance of maintaining the teeth in health. Video clipping may include other children undergoing dental treatment so that the child will feel the similarity and reproduce the behavior exhibited by the model. Preappointment behavior modification can also be performed with live patient as models such as siblings, other children or parents.

Many dentists allow young children into the operatory with parents to preview the dental experience. Because the observing child likely will be initiated into dental care with a dental examination, a parent's recall visit offers an excellent modeling opportunity. On these occasions, many young children climb into the dental chair after their parents' appointments. These previews should be selected carefully. Young children are sometimes frightened by loud noises, as from a high speed handpiece. **The merits of modeling procedures, commonly involving audiovisual or live models, are recognized by psychologists. Summarized them as follows:**

- (1) Stimulation of new behaviors
- (2) Facilitation of behavior in a more appropriate manner
- (3) Disinhibition of inappropriate behavior due to fear, and
- (4) Extinction of fears.

These procedures offer the practicing dentist some interesting ways to modify children's behavior before their dental visit.

Another behavior modification method involves preappointment parental education via mailings, prerecorded messages, or customized web pages. Mails can be sent addressed to the child that provides brief information regarding the procedure. It is called as **pre appointment mailing**. Parents can also be given advice for preparing the child for their first dental visit. Precontact with the parent can provide directions for preparing the child for an initial dental visit, explain office procedures, and answer questions. Setting expectations for the first visit can increase

the likelihood of a successful appointment. Almost all parents understood the letter's contents, acknowledged the dentist's thoughtfulness, and welcomed the concern for the proper presentation to their children. Dentists using preappointment educational materials should be selective. **Overpreparation** could confuse a parent or provoke unnecessary anxiety.

FUNDAMENTALS OF BEHAVIOR GUIDANCE

Behavior guidance: It is the means by which the dental health team effectively and efficiently performs treatment for a child and, at the same time, instills a positive dental attitude.

Effectively in this definition refers to the provision of high-quality dental care. Efficient treatment is a necessity in private practice today. **Quadrant dentistry**, or perhaps **half-mouth dentistry**, utilizing auxiliary personnel is vital in the delivery of efficient service to children. Finally, the development of a pediatric patient's positive attitude is an integral part of this definition. In the past, many practitioners have considered "getting the job done" to be behavior management. The current definition suggests a great deal more. Although various methods in managing pediatric dental patients have evolved over the years, certain practices and concepts remain fundamental (principle) to successful behavior guidance. These are basic to the establishment of good dental team-pediatric patient relationships. These practices increase the chances for success in the provision of care for children.



A child may begin fretting or squirming in the dental chair after **half an hour**, and the treatment intended for that day may have to be divided into multiple appointments. On the other hand, a dentist may plan a step-wise indirect pulp treatment, but because the child is difficult, the indirect pulp procedure may have to be completed during a single session. Treatment of small children may demand a change in operating position. Thus the dental team must be **as flexible as** the situation demands.

COMMUNICATING WITH CHILDREN

Communicative management is used universally in pediatric dentistry with both the cooperative and uncooperative child. It comprises the **most fundamental**

form of behavior management. It is the basis for establishing a relationship with the child, which may allow successful completion of dental procedures, and, at the same time, help the child develop a positive attitude towards dental health. The fears and the natural innate curiosity of a child predict that explanations must be given for new or different techniques and procedures. The explanations must be given for each step of dental treatment. Effective vocabulary is important aspect, as the dentist must only use the words that are understandable by the child. Communicative management is comprised of a host of communication techniques which when integrated together enhances the evolution of a compliant and relaxed patient. These key points are guidelines and not inflexible rules, because in the unpredictable world of pediatric health care, one must always be prepared to improvise.

The important aspect of communication is getting the child to respond to **dentist's commands**. Two things must be remembered here. Firstly, the command may take some time to sink in and be implied with and secondly, the command should be within the ability of child. It is imperative to use positive language like **please can you move your hand** rather than use negative aspect like do not get your hand here.

The three most important facets of communication are **source, medium and receiver**. In reference to dentistry, **dentist is the source, dental clinic is medium and child is the receiver**. If the dentist is good, sympathetic, confident and honest; dental clinic is neat, quiet, familiar to children, full of toys; then automatically the child is communicating and is well managed.

There are two ways of establishing communication:

1. Verbal - Spoken language to gain confidence.
2. Nonverbal - Expression without words like welcome hand shake, patting, eye contact.

Objectives of communication

a. Establishment of communication:

Communication helps the dentist to learn about the child and makes the child at ease and relaxed. There are many ways of initiating verbal communication, and the effectiveness of these approaches differs with the age of the child. Generally, verbal

communication with younger children is best initiated with complimentary comments, followed by questions that elicit an answer other than "yes" or "no."

b. Establishment of the communicator:

Communicator may be any person in the clinic who can provide information. The receptionist who welcomes the child and the parent with the smile provides initial communication. This initial communication is very important in building confidence and projecting the attitude of the clinic staff to the patient. The dental assistant should talk to the child during the transfer from reception room to operatory and during the preparation of the child in the dental chair. When the dentist arrives, the assistant usually takes a more passive role, as the child can listen to one person at a time.

c. Message clarity:

Message content varies from a hearty good morning to relevant information and thank you. Message should be simple and easy to understand by a young child. Euphemisms can be used. While talking to a child it is important to remember certain points. They are

☺ The child may not respond to a question immediately. It takes more time for the question to "sink in" than for adults.

☺ The commands that are given should be simple and within the ability of the patient to obey.

☺ All commands should be given in a positive language since the negative approach may tend to stimulate fear. Example - "Do not move" is avoided and replaced by "I can't fix your teeth until you sit still"

To improve the clarity of messages to young patients, dentists use euphemisms to explain procedures. For pediatric dentists, euphemisms or word substitutes are like a second language.

WORD SUBSTITUTES FOR EXPLAINING PROCEDURES TO CHILDREN

Dental Terminology

Word Substitutes

Rubber dam	Rubber raincoat
Rubber dam clamp	Tooth button
Rubber dam frame	Coat rack
Sealant	Tooth paint
Fluoride varnish	Tooth vitamins
Air syringe	Wind gun
Water syringe	Water gun
Suction	Vacuum cleaner
Alginate	Pudding
Study models	Statues
High speed	Whistle
Low speed	Motorcycle

It is important to be careful in selecting words and phrases used to indoctrinate the new pediatric dental patient because for the young child, language labels are the basis for many generalizations. The classic example is the language label for "doctor," which confuses many youngsters. This is known as mediated generalization. Eventually, as a result of experiences, the child learns that the "dentist doctor" is different from the "physician doctor" and that the physician's office and the dentist's office are different environments. The process of sorting out such differences is referred to as **discrimination**.

Voice Control

Sudden and firm commands that are used to get the child's attention and stop the child from his current activity. Soft, monotonous soothing conversation can also be used as it is supposed to function like music to set the mood. In both cases what

is heard is more important because the dentist is attempting to influence behavior directly and not through understanding. The tone of voice and the facial expression of the dentist are also important as they function like a mirror.

Voice control is most effective when used in conjunction with other communications. A sudden command of "Stop crying and pay attention!" may be a necessary preliminary measure for future communication. Used properly in correct situations, voice control is an effective behavior guidance tool. However, because parents may find voice control to be an aversive technique, discussing this technique with parents prior to its use may decrease the risk for misunderstanding. (It may not be acceptable to all parents or clinicians, some parents might feel offended if you raise your voice on their child.)

Objectives

- To gain the patient attention and compliance
- To avoid negative or avoidance behavior
- To establish authority

Indications

- Uncooperative and inattentive patients

Contraindications

- Children who due to age, disability, mental or emotional immaturity are unable to understand.

Non-verbal communication

It literally means communicating 'without talking', so non-verbal communication is the reinforcement and guiding behavior through contact, posture, and facial expression. Body contact can be a form of nonverbal communication. The dentist's simple act of placing a hand on a child's shoulder while sitting on a chairside stool conveys a feeling of warmth and friendship. This type of physical contact helped children to relax, especially those from **seven to 10** years of age.

Eye contact is also important. The child who avoids it often is not fully prepared to cooperate. Apprehension can be conveyed without a spoken word. Detecting a rapid heartbeat or noticing beads of perspiration on the face are observations that alert the dentist to a child's nervousness. When the dentist talks to children, every effort should be made not to tower above them. Sitting and speaking at eye level allow for friendlier and less authoritative communications.



Note

Sometimes the non-verbal signals are more important than what the dentist said, because children can read these signals and can feel if the dentist is stressed out when he is giving them local anesthesia. Therefore, the dentist need to try and calm himself so that they feel that he is confident and they're in good hands.

There are 3 essential messages that we want to send to child patients mainly through non-verbal communication:

1. "I see you as an individual and 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"

Objectives

1. To enhance the effectiveness of communicative management techniques.
2. To gain or maintain the patient's attention and compliance.

Contraindications:

Children who due to their age, disability or emotional maturity are unable to cooperate.

- **Problem Ownership**

In difficult situations, dentists sometimes forget that they are guiding the behavior of children. They begin by sending "you messages, for example, "You stop

that immediately!" or "If you don't stay still, we will have to hold your hands." "You" messages have been termed roadblocks to communication; instead of gaining cooperation, they only undermine the rapport between a pediatric patient and dentist. "You" messages may impugn a child's character, depreciate him as a person, shatter his self-esteem, underscore his inadequacies, and cast judgment. They are more likely to provoke conflict and rebellion than **"I" messages**. "I" messages reflect the practitioner's experience and disclose the focus of the problem, such as "I can't fix your teeth if you don't open your mouth wide." They are honest, clear, and inarguable. This self-disclosing assertiveness is one technique that is particularly well suited to increase the flow of information between the dentist and the pediatric patient. A technique that encourages the use of "you" is attending. Attending describes the desirable conduct to help shape compliance. For example, "You are staying so still" reinforces the specific cooperative behavior that is necessary for the treatment to be completed. Positive attention to discrete behaviors confirms to children that they are doing what was requested and can nurture the relationship between patients and providers.

- Active Listening

Listening is important in the treatment of children. Children express their feelings by word and by action. Listening to the spoken words may be more important in establishing rapport with the older child, whereas attention to nonverbal behavior is often more crucial in guiding the behavior of a younger child. Active listening mirrors the communicated emotion. Whether the child says "I'm scared" or hesitates in opening his mouth, the dentist needs to acknowledge, not ignore, what the child is feeling. Sensitivity to the expressed emotions can reassure the child and encourage genuine communication. The patient is stimulated to express feelings, and the dentist does the same, as necessary processes in communication.

- Appropriate Responses

Another principle in communicating with children is that the response should be appropriate to the situation. The appropriateness of the response depends primarily on the extent and nature of the relationship with the child, the age of the child, and evaluation of the motivation of the child's behavior. An inappropriate response would be a dentist's displaying extreme displeasure with an anxious young child on the first visit, when there has been insufficient time to establish a good

rapport. On the other hand, if a dentist has made inroads with a child, who then displays unacceptable behavior, a dentist may well express disapproval without losing personal control. The response is then appropriate.

BEHAVIOR SHAPING

Behavior shaping is a common nonpharmacological technique. It is a form of behavior modification; hence, it is based on the established principles of social learning. By definition, it is that procedure which very slowly develops behavior by reinforcing successive approximations of the desired behavior until the desired behavior occurs. Proponents of the theory hold that most behavior is learned and that learning is the establishment of a connection between a stimulus and a response. For this reason, it is sometimes called **stimulus-response (S-R) theory**. When shaping behavior, the dental assistant or dentist is teaching a child how to behave. Young children are led through these procedures step by step. Patients have to be communicative and cooperative to absorb information that may be complex for them.

The following is an outline for a behavior-shaping model:

1. State the general goal or task to the child at the outset.
2. Explain the necessity for the procedure. A child who understands the reason is more likely to cooperate.
3. Divide the explanation for the procedure. Children cannot always grasp the overall procedure with a single explanation; consequently, they have to be led through the procedure slowly.
4. Give all explanations at a child's level of understanding. Use euphemisms appropriately.
5. Use successive approximations. Tell-show-do technique has remained a cornerstone of behavior guidance. It is a series of successive approximations, and it should be used routinely by all members of the dental team who work with children. Dental assistants, dental hygienists, and dentists should demonstrate various instruments step by step before their application by telling, showing, and doing.

When the dentist works intraorally, a pediatric patient should be shown as much of the procedure as possible.

6. Reinforce appropriate behavior. Be as specific as possible because specific reinforcement is more effective than a generalized approach. Immediate and specific reinforcements can reduce children's fear-related behaviors.

7. Disregard minor inappropriate behavior.

Behavior shaping is regarded as a learning model. Although tell-show-do is similar to behavior shaping, the two differ. In addition to demanding the reinforcement of cooperative behavior, behavior shaping also includes the need for steps to be retraced if misbehavior occurs.

Behavior shaping may include:

- **Desensitization**
- **Tell-Show-DO**
- **Modelling**
- **Contingency**
- **Distraction**

Desensitization

It is also called as **reciprocal inhibition**. It is a training procedure or steps taken to reduce the sensitivity of the patient to a particular anxiety producing situation or object. Each situation or object is then introduced progressively starting from least fear producing to more threatening stimuli.

The Technique Involves Three Stages

1. Training the patient to relax.
2. Constructing a hierarchy of fear producing stimuli related to the patient's principal fear.
3. Introducing each stimulus in the hierarchy in turn to the relaxed patient, starting with the stimulus that causes least fear and progressing to the next only when the patient no longer fear that stimulus.

Indications

- 1) First Visit.
- 2) Subsequent visits when introducing new dental procedure.
- 3) Fearful Child.
- 4) Apprehensive Child because of information received from parents.

Tell-Show-Do (TSD)

It is a component of behavior shaping that should be routinely used by all members of the dental team who work with children. Specifically, the dentist tells the child what is going to be done in words the child can understand. Second, the dentist demonstrates to the child exactly how the procedure will be conducted. Finally, the practitioner performs the procedure exactly as it was described and demonstrated.

Objectives

1. To teach the patient aspects of dental visit and to familiarize him with the dental setting.
2. To shape patients response to various procedures through desensitization and well-described expectations.



With Tell-Show-Do we don't ask permission (Example: after we show the child and tell him about low speed hand piece we tell him to open his mouth and we start work, because mostly if we ask for his permission his answer would be **NO**).