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## **CLASSIFYING CHILDREN'S COOPERATIVE BEHAVIOR**

Numerous systems have been developed for classifying children's behavior in the dental environment. An understanding of these systems can be an asset to the dentist in several ways: assisting in directing the behavior guidance approach, providing a means for the systematic recording of behaviors, and assisting in evaluating the validity of current research.

***Behavior patterns of a child can be classified in various ways:***

### ***I) According to age***

- Pre-cooperative stage-less than 2 years
- Cooperative stage-above 2 years

***The pattern of child behavior at certain age with expected development:***

\* **2-year-old children:** Dentists sometimes refer to such children as being in the pre-cooperative stage and often referred to as being in the stage of the "terrible twos."

\* **3- year-old children:** Children communicate more easily than 2 years old, but they need their parents to remain with them in clinic to feel more security.

\* **4- year-old children:** The child usually listens and has a response with interest to dentist explanation and verbal direction.

\* **5- year-old children:** If the child properly prepared by the parents, he will have no fear of new experience.

\* **6- year-old children:** The child need proper introduction about dental treatment in order to respond in a satisfactory manner because the tensional manifestation rise to peak at this age.



### ***II) According to Clinical classification of behavior patterns***

Wright's clinical classification places children in one of three categories:

- Cooperative
- Lacking cooperative ability
- Potentially cooperative

**Note:** When a child is being examined, his/her cooperative behavior is taken into account because it is a key to the rendering of treatment. Most children seen in the dental office are cooperative.

**Cooperative children are:**

- 1) Reasonably relaxed.
- 2) They have minimal apprehension and may even be enthusiastic.
- 3) They can be treated by a straightforward, behavior-shaping approach. When guidelines for behavior are established, these children perform within the framework provided.

**Lacking in cooperative ability children are (In contrast to the cooperative children):** This category includes

- 1) Very young children with whom communication cannot be established and of whom comprehension cannot be expected. Because of their age, they lack cooperative abilities.
- 2) Another group of children who lack cooperative ability is those with specific debilitating or disabling conditions. The severity of the child's condition prohibits cooperation in the usual manner.

At times, special behavior guidance techniques are used for these children. Although their treatment can be carried out, immediate major positive behavioral changes cannot be expected.

### **Potentially cooperative child is “behavior problem”:**

This type of behavior differs from that of children lacking cooperative ability because these children have the capability to perform cooperatively. They have the ability to cooperate but they choose not to (the most challenging pts.) and they are the most common pts you are going to meet. This is an important

distinction. When a child is characterized as potentially cooperative, clinical judgment is that the child's behavior can be modified; that is, the child can become cooperative.

The adverse reactions have been given specific labels for descriptions of potentially cooperative patients, so that potentially cooperative group are further categorized as follows:

#### **1. Uncontrolled behavior**

- Seen in 3-6 years.
- Tantrum may begin in the reception area or even before.
- This behavior is also called as ‘incurable’.
- Tears, loud crying, physical lashing out and flailing of the hands and legs- all suggestive of a state of acute anxiety or fear.
- School aged children tend to model their behavior after that of adults.
- If it occurs in older children, there may probably be deep rooted reasons for it.



#### **2. Defiant behavior (challenging one) (Also referred to as “stubborn” or “spoilt”)**

When the child starts getting older, he will try to resist you, small children refuse to open their mouth by saying "I don't want to" but when they are a little bit older they will sit and open their mouth but at the same time they will start pushing you by their hands.

- Can be found in all ages, more typical in the elementary school group.
- Distinguished by “I don't want to” or “I don't have to” or “I won't”.
- They protest when they are brought to the dental clinic against their will, as they do at home.
- Once won over, these children frequently become highly cooperative.



#### **3. Timid behavior**

They are (Mostly female) they hide their faces by their hands or hide behind their mother and maybe at any time they deteriorate to uncontrolled.

- Milder but highly anxious.



- If they are managed incorrectly, their behavior can deteriorate to uncontrolled. May shield behind the parent.
- Fail to offer great physical resistance to the separation.
- May whimper, but do not cry hysterically.
- May be from an overprotective home environment or may live in an isolated area having little contact with strangers.
- Needs to gain self-confidence of the child.

#### 4. Tense cooperative behavior

> 7 years, they try to help us but they are very anxious, we call them white knuckles, they hold something with their hand(s) in a constant position, a chair for example so their knuckles become white.

- Border line behavior
- Accept treatment, but are extremely tense
- Tremor may be heard, when they speak
- Perspire noticeably



#### 5. Whining behavior

(No pain, no tears) just "naaaaaa" Usually continuous, it's annoying.

- They do not prevent treatment, but whine throughout the procedure
- Cry is controlled, constant and not loud
- Seldom are there tears
- These reactions are at times frustrating and irritating to the dental team
- Great patience is required while treating such children

### III) According to Frankl's Behavior Rating Scale

- **Rating 1: Definitely negative.** Refusal of treatment, forceful crying, fearfulness, or any other overt evidence of extreme negativism (Defiant behavior)
- **Rating 2: Negative.** Reluctance to accept treatment, uncooperativeness, some evidence of negative attitude but not pronounced (sullen, withdrawn) (Timid and whining behavior)
- **Rating 3: Positive.** Acceptance of treatment; cautious behavior at times; willingness to comply with the dentist, at times with reservation, but patient follows the dentist's directions cooperatively (Tense co-operative, Whining and timid)
- **Rating 4: Definitely positive.** Good rapport with the dentist, interest in the dental procedures, laughter and enjoyment.

Wright (1975) added symbolic modifications to the Frankl's rating scale and made it more applicable and easier to understand child behavior:

- Rating no. 1 - definitely negative (- -)
- Rating no. 2 - negative (-)
- Rating no. 3 - positive (+)
- Rating no. 4 - definitely positive (++)

## *The Functional Inquiry*

Before the dentist treats a child, medical, dental, and social histories are essential. However, a functional inquiry, from a behavioral viewpoint, should also be conducted. During the inquiry, there are two primary goals:

- (1) to learn about patient and parental concerns
- (2) to gather information to enable a reliable estimate of the cooperative ability of the child.

Coupling the findings from the functional inquiry with the clinical experience, the dentist is in a much better position to meet the patient's needs and to apply appropriate behavior guidance strategies to treat individual pediatric patients than by simply proceeding inadequately informed.

## **STRATEGIES OF THE DENTAL TEAM**

A primary objective during dental procedures is to lead children step by step so that they develop a positive attitude toward dentistry. Fortunately, most children progress easily and pleasantly through their dental visits, without undue pressure on themselves or the dental team. These successes can be attributed to several factors, such as a child's confident personality, a parent's proper preparation of the child for the appointment, or a dental team's excellent communicative skills. In contrast, some children's dental office experiences cause anxiety and the beginning of a negative dental attitude. Sometimes these controllable but apprehensive children are managed without medication, as long as appropriate nonpharmacologic psychologic techniques are used.

Because behavior guidance techniques are used daily and come naturally to many persons, their importance sometimes is overlooked or taken for granted. This increases the potential for avoidable behavior problems. However, a full understanding and conscious implementation of strategies can lead to recognizable improvements in child management skills (which is a complex problem) that requires a team effort involving the parent, the dental staff and sometimes even the teacher.

Principles of behavior management technique is as following:

- 1. Anticipation:** Explaining the child regarding the procedure and answering the question regarding dentistry and procedures. This can be done through Tell Show Do approach, Good communication etc.
- 2. Diversion:** Diverting the child's attention away from fear producing situation may calm the child and allow the dentist to perform the treatment without disturbance i.e. Audio analgesia, etc.
- 3. Substitution:** It involves substituting unwanted behavior by an accepted behavior. This can be done by contingency management, modeling etc.
- 4. Restriction:** Restricting a child from exhibiting unwanted behavior. This can be achieved through physical restrains or pharmacological behavior management technique.

Behavior management can be achieved by basically two methods:

1. Nonpharmacological methods
2. Pharmacological methods

## ***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 highspeed 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 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.

The success of behavior management is based on the attitude and integrity of entire dental team. Dental office and dental personnel must have the following quality:

**1. The positive approach:**

There is general agreement that the attitude or expectation of the dentist can affect the outcome of a dental appointment. Thus, positive statement increases the chances of success with children.

**2. The team attitude:**

Personality factors of the dental team play an important role in the success of behavior management. For example, warmth welcomes with interest that can be conveyed without a spoken word are critical when dealing with children. A pleasant smile tells a child that an adult cares. Children respond best to a natural and friendly attitude. Often this can be conveyed immediately to the pediatric patient through a casual greeting. Children also can be made to feel comfortable in the dental office by the use of nicknames, which can be placed on a patient's record. Noting school accomplishments or extracurricular activities such as scouting, baseball, gymnastics, or other hobbies helps in initiating future conversations and demonstrates a friendly, caring attitude to a pediatric patient.

**3. Organization:**

Pediatric dental clinic must be well organized. Each dental staff must train for his specialized work. For example, if a child creates disturbance in the reception area who will manage with the problem? Each dental office must devise its own contingency plans, and the entire office staff must know in advance what is expected of them and what is to be done. Also, a well written plan has to be available for the dental office team. Such plans are key features of many pediatric dental offices because they increase efficiency and contribute to successful dental staff-pediatric patient relationships. Also, a well-organized, written treatment plan must be available for the dental office team. Delays and indecisiveness can build apprehension in young patients.

**4. Truthfulness:**

The truthfulness of dental team is extremely important in building trust; it is a fundamental rule for dealing with children. Unlike adults, most children see things as either "black" or "white." The shades between are difficult for them to discern. To youngsters, the dental health team is either truthful or not. Because truthfulness is extremely important in building trust, it is a fundamental principle in caring for children. Recognizing and acknowledging a patient's fear and anxiety can strengthen that trust. Empathizing with, rather than denying, such emotions helps provide assurance that the dentist appreciates the patient as an individual.

**5. Tolerance:**

It refers to the dentist ability to rationally cope with misbehaviors while maintaining composure (state of being calm and in control of yours feeling or behaviors). Recognizing individual tolerance level is especially important when dealing with children. Different individual showed different tolerance level (Tolerance level varies from person to person). For example, an upsetting experience at home can affect the clinician mood in the dental office. High tolerance level prevents loss of self-control.

Some people are in a better frame of mind early in the morning, whereas the coping abilities of others improve as the day progresses. Thus afternoon people should instruct receptionists not to book children with behavior problems the first thing in the morning. Learning to recognize factors that overtax tolerance levels is another fundamental because it prevents loss of self-control.

### 6. Flexibility:

Because children lack maturity, the dental team has to be flexible and prepared to change its plans at the time of treatment as situations demand.

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 command 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**

Rubber dam  
 Rubber dam clamp  
 Rubber dam frame  
 Sealant  
 Fluoride varnish  
 Air syringe  
 Water syringe  
 Suction

#### **WORD SUBSTITUTES**

Rubber raincoat  
 Tooth button  
 Coat rack  
 Tooth paint  
 Tooth vitamins  
 Wind gun  
 Water gun  
 Vacuum cleaner

Alginate  
Study models  
High speed  
Low speed

Pudding  
Statues  
Whistle  
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.