



Nonpharmacologic Behavior Management

**LECTURE BY,
Dr. SHANTANU CHOUDHARI**

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- **Behavior** is any activity that can be observed, recorded and measured. It is an observable act or any change in the functioning of an organism.
 - **Behavior management** is the means by which the dental health team effectively and efficiently performs treatment for a child and at the same time, instils a positive dental attitude (Wright, 1975)

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- **Behavior modification** is defined as the attempt to alter human behavior and emotion in a beneficial manner according to the laws of modern learning theory (Eysenck,1964).
 - **Behavior shaping** is the procedure, which slowly develops behavior by reinforcing a successive approximation of desired behavior until the desired behavior comes into being, e.g. desensitization, tell show do, modeling, distraction, contingency management.

Objectives of behavior management (Snowder, 1980)

- To establish effective communication with child and parent.
- Gain child and parent confidence for dental treatment.
- Teach child positive aspect of preventive dental care.
- Provide a comfortable, relaxing environment to the child.

FACTORS INFLUENCING CHILD'S BEHAVIOR IN DENTAL OFFICE

- **Medical history:**

it is the emotional quality of past visits rather than the number of visits to the physician that is significant

- **Maternal Anxiety:**

Highly anxious mother had a negative influence on the child.

- **Family and Peer Influence:**

Socioeconomic status of the family directly affects child's attitude toward the values of the dental health process.



- **Dental Office Environment:**


Bohuslov (1970) stated that psychologic preparation of the child is based on the physical environment.

- **Growth and Development:**

- A child's chronological age plays a significant role in growth and developmental patterns. Younger the child, more atypical will be the response.
- The intellectual age of **3 years** signifies a maturational readiness to accept dental treatment

- **Personal Factors:**

- Temperament, general fearfulness

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- **Environmental Factors:**
 - age of the child, socioeconomic status, family situation, frequent exposure to invasive medical care, past experience of operative dental care
 - parental dental fear is the most influencing factor amongst all.
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- **Other Variables:**
 - presence of parent and attitude of dentist.

ROLE OF DENTIST IN CHILD'S BEHAVIOR

- Appearance of dental office
- Personality of dentist
- Time and length of appointment
- Dentist's conversation
- Attention to patient
- Use of simple words
- Use of admiration, subtle flattering, praise and reward
- Self-control of dentist



MATERNAL INFLUENCE ON CHILDREN'S BEHAVIOR IN DENTAL SITUATION

- mother child relationship falls into two broad categories:
 - (1) autonomy vs control
 - (2) hostility vs love

Maternal attitude	Child's behavior
Overprotective	Submissive, shy, anxious
Overindulgence	Aggressive, spoiled, demanding, displays temper tantrums
Under affectionate	Usually well behaved, but may be unable to cooperate, may cry easily
Rejecting	Aggressive, overactive , disobedient
Authoritarian	Evasive

Effect of the Parental Presence in the Operatory

- dentists generally prefer to have parents absent from the operating room
- Frankl found that children in age group of 42 to 49 months are benefited from mother's presence
- Young children are more prone to a number of fears, like fear of unknown and hence exhibit anxiety



Parental Behavior in the Dental Office

- **Some instructions that should be told to the parents are:**
- Tell the parents not to voice their own personal fears in front of the child.
- Tell the parents never to use dentistry as a threat of punishment.
- Parents should familiarize their children with dentistry by taking the child to the dentist to become accustomed to the dental office and the dentist.
- Consult the parent about the home environment and the importance of moderate parental attitudes in building well adjusted child.
- The parent should not promise the child what the dentist is or is not going to do.

Parent-Child Separation

- excluding the parent from the operating room could contribute in controlling the child's positive behavior
- dentists probably are more relaxed and comfortable
- Parents often repeat orders, creating an annoyance for both dentist and child patient.
- Parents impose orders, becoming a barrier to the development of rapport between the dentist and child.
- Dentist is unable to use voice intonation in the presence of the parent because he may be offended.
- Child divides attention between parent and dentist.
- Dentist's attention is divided between parent and child.

CLASSIFICATION OF CHILD BEHAVIOR IN DENTAL OFFICE


- Frankl's Classification:

Behavior	Rating	Symbol	
Definitely negative	Rating no.1	(--)	Refuses treatment Cries forcefully Extreme negative behavior associated with fear
Negative	Rating no.2	(-)	Reluctant to accept treatment Displays evidence of slight negativism: - Timid behavior - Whining behavior
Positive	Rating no.3	(+)	Accepts treatment
Definitely positive	Rating no.4	(++)	Unique behavior

Classification of behavior management techniques

Psychological approach:

- Preappointment behavior modification
- Communication
- Use of second language
- Tell show do
- Desensitization
- Contingency management
- Visual imagery
- Modeling
- Behavior shaping
- Assimilation and coping

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- Hypnosis
 - Retraining
 - Distraction
 - Externalization
 - Parental presence or absence
 - Reframing
 - Voice control

Physical approach:

- Hand over mouth
- Physical restraints

Pharmacological:

- Premedication
- Conscious sedation
- General anesthesia

PREAPPOINTMENT BEHAVIOR MODIFICATION

Audiovisual Modeling:

- The goal is for the patient to reproduce the behavior exhibited by model.
- Child sees the video cassette before proceeding to dental clinic, on day of appointment.
- Type of model used can be siblings, other children or parents.
- It is best recommended to use the model of the same age as that of the child patient so that he can easily relate himself with the model



- **Preappointment Mailing**

- Contact with the child's parents before the first dental visit increases the likelihood of a success as it prepares the patient for first dental visit.
- Parent can be contacted by telephone as a reminder the day before the dental appointment it may serve in establishing good relationship.


COMMUNICATION:

- By involving the child in conversation, the dentist learns about the patient and relax the youngster
- two ways of establishing communication:

- Verbal
- Nonverbal

- Dentist must only use the words that are understandable by the child.
- Communication with children aged **2 to 7 years** should be based on **Piagetian concept** (Animism-giving life to an inanimate object) which involves giving life like names to dental instruments like handpiece is called whistling Charlie.



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- Honesty of approach.
 - Use of positive language
 - 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.



USE OF SECOND LANGUAGE(EUPHEMISMS)

- Address the child at his or her level of comprehension
- word substitutes are most effectively used with preschool children.
- The tone of the voice can be very effective in altering the child's behavior. A change of tone or volume can be used to communicate a feeling or sense to the child.

Dental terminology

- Anesthetic water
- Bur
- Caries
- Explorer
- Evacuator
- Matrix
- Rubber dam
- Stainless steel band
- Stainless steel crown
- X-ray
- Radiograph

Word substitute

Sleepy medicine or sleepy
Brush or pencil
Brown spot: sugar bugs
Tooth counter
Vacuum cleaner
Fence for filling
Raincoat
Ring for the tooth
Hat for the tooth
Camera
Picture

TELL-SHOW-DO

- by Addleston in 1959
- **Tell:**
- Verbal explanations of procedures in Phrases appropriate to the developmental level of the child
- In telling, explain to the child exactly What you are going to do. Tell the child before you do it, while you are doing it, and after you have done it.
- dentist should be truthful with the child.
- voice should be soft, yet firm, confident, and continuous.



- **Show:**

- Demonstration of the visual, auditory, olfactory and tactile aspects of the procedure in a carefully defined, nonthreatening setting.

- The dentist can either demonstrate On himself or on an inanimate object. In showing, demonstrate to the child what will happen, how and with what equipment.

- bringing equipment from behind the child or below the visual level is preferred.




DO:

- Without deviating from the explanation and demonstration the dentist proceeds directly to perform the previewed operation).
- In doing, do what you said you would do.
- Use the same tone of voice in telling what you are doing as you do it.
- Do not do until the child has a clear awareness of what it is you are going to do.



DESENSITIZATION


- Demonstrated by James and popularized by **Wolpe**.
- used in children having pre-established fears and uncooperative behavior.
- Desensitization is a therapeutic technique that pairs an anxiety-evoking stimulus with a response inhibitory to anxiety. In such situations the perceived link between the stimulus and the anxiety response is weakened.
- Wolpe used relaxation as the inhibitor of anxiety. Technique usually involves teaching the patient to induce a state of deep muscle relaxation and while the patient is in relaxation state, tell him to imagine scenes that are relevant to his fears.
- Imaginary scenes are presented to the patient in a graduated fashion so that scenes provoking only minimal anxiety are initially described and gradually more stressful situations are presented.

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- **Preventive desensitization** is philosophically possible for the child dental patient approaching the first dental appointment.
 - A graded introduction of the child to dentistry, tell-show-do approaches, and accomplishment of easy procedures) are aspects of preventive desensitization.
 - Because of mass media and fears acquired from siblings, peers, and parents, it is reasonable to believe that most children age **30 months or older** are to a degree sensitized to dentistry before their first appointment.
 - Additionally, medical appointments may have sensitized the child to any clinical setting

MODELING

- Synonymous terms: imitation, observational learning, identification, internalization, introjections, coping, social facilitation, contagion and role taking.
- Based on **Bandura's social learning theory**.
- Procedure involves allowing a patient to observe models who demonstrate a positive behaviour in a particular situation.



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- Patient frequently imitate the behaviour of models when placed in similar situations.
 - Modeling can be done by:
 - live models
 - audio visual aids
 - posters
 - Improves the experience of apprehensive children who had no previous dental experience.

CONTINGENCY MANAGEMENT

- Based on BF Skinner's **operant conditioning**.
- The presentation of positive reinforcers or withdrawal of negative reinforcers is termed contingency management.
- **Types of Reinforcers:**
 - Positive reinforcers: It is the one whose presentation increases the frequency of desired behavior.
 - Negative reinforcers: whose withdrawal increase the frequency of behaviour.

VOICE CONTROL

- It is the modification of intensity and pitch of one's own voice in an attempt to dominate the interaction between the dentist and the child
- Used in conjunction with some form of physical restraints and hand-over-mouth exercise.
- Change in tone from gentle to firm helps to gain child's attention.

COPING

- Coping is the mechanism by which the child copes up with the dental treatment.
- Coping refers to cognitive and behavioral efforts made by individuals to master, tolerate or reduce stressful situations.
- Coping effects may be of two types: 1) behavioural
2) cognitive
- The normal coping mechanisms utilized by dentist are friendliness, support and reassurance.

HYPNOSIS

- Hypnosis is an altered state of consciousness characterized by a heightened suggestibility to produce desirable behavioural and physiological changes.
- when used in dentistry ,can be termed as hypnodontics , psychosomatic or suggestion therapy.
- To reduce anxiety and pain.

Implosion Therapy

- Sudden flooding with a barrage of stimuli which have affected him adversely and child has no other choice but to face the stimuli until negative response disappears.
- Mainly comprises HOME, voice control and physical restraints.

Aversive conditioning

- Written Parental consent
- Safe and effective method of managing extremely negative behaviour .
- Two common methods:
 - HOME
 - Physical Restraints

HOME(hand over mouth exercise)

- **Purpose:** To gain attention of a child so that communication can be achieved.
- **Indication**
 - A healthy child who is able to understand and cooperate but who exhibits defiant or hysterical behavior to dental treatment.
 - 3-6 years old
 - Children displaying uncontrolled behavior
- **Contraindications**
 - child under 3 years of age
 - physically ,mentally or emotionally handicapped child

- Variations of the Techniques:

- Hand over mouth with airway unrestricted

- Hand over both nose and mouth and airway restricted

- Towel held over mouth only,

- Dry towel over nose and mouth

- Wet towel over nose and mouth.



Physical Restraints

- last resort for handling uncooperative patients or handicapped patients.
- Used for children who are hypermotive ,stubborn and defiant
- involve restriction of movement of children's head, hands ,feet or body.
- Can be : active : without aid of restraining device
passive : with aid of restraining device

Types of physical restraints

a) For body:

- pedi wrap
- papoose board
- sheets
- beanbag with straps
- towel and tapes



Mouth

- Banded tongue blades
- Mouth props
- Rubber bite blocks
- Finger guards



Extremities

- Posey straps
- Velcro straps
- Towel and tape



Head:

- Head positioner

