BACHELOR OF DENTAL SURGERY

Dental Clinical Practice 4

Behaviour Assessment and Management

Paediatric Dentistry

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Effective communication

Establishing communication with the child is one of the first objectives in behaviour management

This requires assessment of child's behaviour

How do we assess a child's behaviour?

This is based on an understanding of:

- Motor development
- Language development
- Psychosocial development…
  1. Piaget's stages of cognitive development
  2. Psychosocial theory (Erikson)
  3. Learning theory:
     a. Classic conditioning (Ivan Pavlov)
     b. Operant conditioning (Skinner)

Measuring and classifying behaviour

- In order to assess behaviour, the target behaviour first needs to be defined
- Many ways to asses behaviour

Behaviour rating scales

1. Frankl Scale
2. Wright's scale of cooperative ability

Frankl Scale

- Simple, effective way to assess behaviour:
- ++ Definitely positive
  Good rapport, interested & enjoying dental procedure
- + Positive
  Accepts treatment but at times cautious
- - Negative
  Reluctant to accept treatment
- - - Definitely negative
  Refusal of treatment, crying forcefully or fearful

Wright's Scale

- Cooperative:

  ++ Relaxed, minimal apprehension, enthusiastic
  Can be treated by simple behaviour shaping approach
  Applies to most children

- Potentially Cooperative:

  + Behavioural problems but has the capacity to perform cooperatively with appropriate behaviour modification

- Lacking in cooperative ability / pre-cooperative:

  −− Very young or special needs children

FEAR

Fear is an emotional response to an external threat or danger.This is a preventive response developed to protect the individual from harm and self - destruction

TYPES OF FEAR

- **Objective fear** : Direct physical stimulation of the sense organs.
- **Subjective fear**: Feelings and attitudes that have been suggested to the child by others

Factors Affecting Childs Behavior in a Dental Office

- **Out side the Dentist control**
- **In side Dentist control**

Factors out side dentist control

1. Maternal Characteristics

Mothers	Children
Loving	Calm & Happy
Hostile	Excitable
Give Autonomy	Friendly & Co-operative
Punitive	Lack confidence

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2. Maternal Attitudes

Maternal Attitudes	Childs Behavior
Over Protective	Submissive & Shy
Under Affection	Un co-operative & Cry
Rejecting	Low self esteem, Anxious & Aggressive
Identification	Feeling guilty

3. Sibling Relationship

Order Of Birth	Childs Behavior
First	Anxious
Middle	Out going
Young	Irritable

4. Socio Cultural Factors

1. **Socio economic factors : Have a effect on Childs Behavior.**
2. **Cultural & Ethnic factors : Each subculture has its own values .**

Factors Under Dentist Control

- Data gathering
- Structuring
- Externalization
- Empathy & Support
- Flexible Authority
- Education & Training
- Dentist Attire
- Appointment Time
- Dental Environment
- Pre appointment preparation

Data Gathering & Observation

- Collecting information about the child and his or her parents
- Observation begins with noting the child in the waiting room

Structuring (Guidelines of behavior)

- Explain to the child
- Prepare the child for each phase of treatment
- Separate procedures into stages
- Prepare the child for change in sensation before he will experience it

Externalization

- **Childs attention is focused away from the sensations associated with the dental treatment.**

- **Two components are :**
  1. Distraction **2. Involvement**

Distraction techniques

- Attempt to shift attention from the dental setting or specific procedure towards some other situation or stimulus e.g. with LA
- Attempting to get individuals to identify and then alter their dysfunctional beliefs (for older children)

Empathy & Support

- **Understand the feelings of others without losing one's objectivity**
- **Dentist should not be totally engrossed in the technical aspects**
- **Sensitive and respond to the Childs feelings.**

Flexible Authority

- **Dentist control dentist patient interaction**
- **Authority must be tempered with a degree of flexibility in order to meet the needs of the particular patient.**

Education & Training

- **Educate children and their parents as to what constitutes good dental health**
- **Stimulate a behavioral change necessary to achieve these goals**

Dentist Attire

- **The attire worn by the dentist**
- **Appearance of a white clothed individual would evoke negative behavior in children**

Length & Time Of Appointment

- **Appointment should be short because of short attention span.**
- **Early morning appointments are preferable for young children because they are more rested and cooperative.**

Dental Environment

- **Pleasant environment lowers anxiety levels**

Pre-appointment behaviour modification

- Anything that is said or done to positively influence the child's behaviour before the child enters the surgery

Advantage:

Prepares the child and eases the introduction to dentistry

- If the first visit is pleasant it paves the road for the future successes

Next step: can you manage or even modify a child's behaviour?

- Behavior Modification: Attempt to alter human behavior & emotion in a beneficial manner according to the learning theory.
- Behavior Shaping: Develop behavior by reinforcing desired behavior, until you get the desired behavior.
- Behavior management: 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* (Wright, 1975)

Behavior Modification

- **Desensitization**
- **Modeling**
- **Contingency management**

DESENSITIZATION

Induce a state of deep muscle relaxation and describing imaginary scenes relevant to his fears in a graduated fashion.

Systematic densensitzation reducing anxiety by working through various levels of fear from least to most fear provoking (For older children)

Desensitization in similar to "Tell – Show – Do" approach

Useful in the following situations :

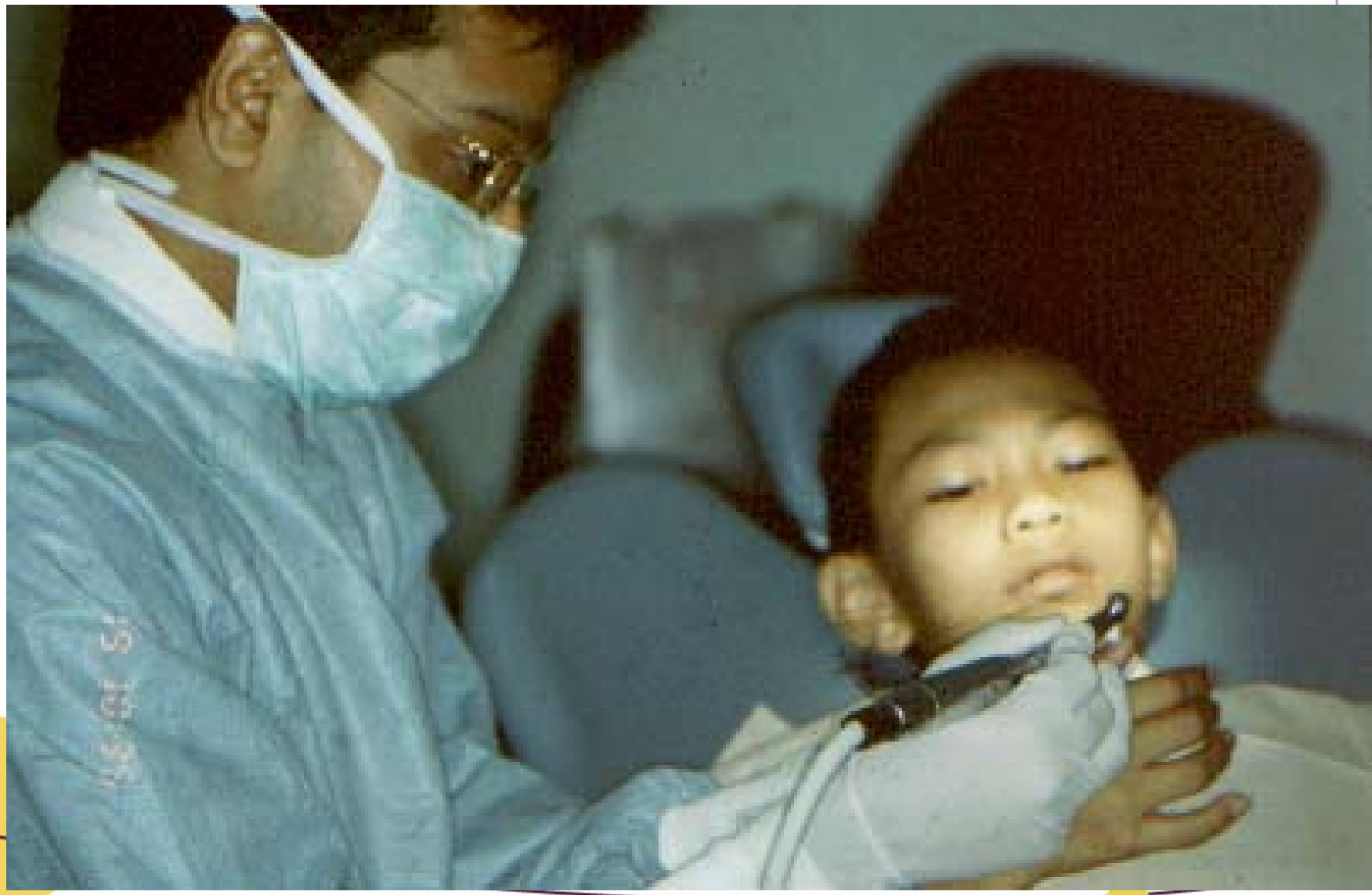
1. **First dental visit.**
2. **Subsequent appointments when procedures are new to the child.**
3. **When treating referral patients.**

Tell – Show – Do Technic

The objective is to remove fear of new surroundings and people.

1. **Telling the child about the new situation and what is going to be done.**
2. **Showing to the child.**
3. **Doing what the child was told would be done.**

Show to the child



Do what is shown to the child

Use of Language

- Keep jargon to minimum
- Age appropriate
- Use of euphemisms
  - Fairy water / special water
  - Wind
  - Rubber raincoat
  - Tooth button
  - Coat Hanger
  - Sick tooth
  - Vacuum cleaner
  - Germs
  - play dough / Bubblegum
  - Fire engine

Modelling (Bandura 1967)

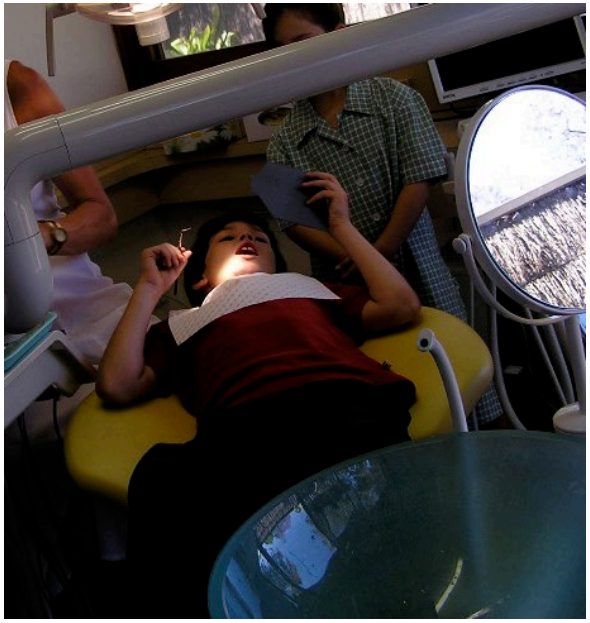
- Imitation and observational learning is the basis for modelling
- Children acquire favourable or unfavourable responses simply by watching and listening to people around them
- Allowing the child to observe one or more individuals who demonstrate appropriate behaviors in a particular situation. The child will imitate the model's behavior when placed in a similar situation.

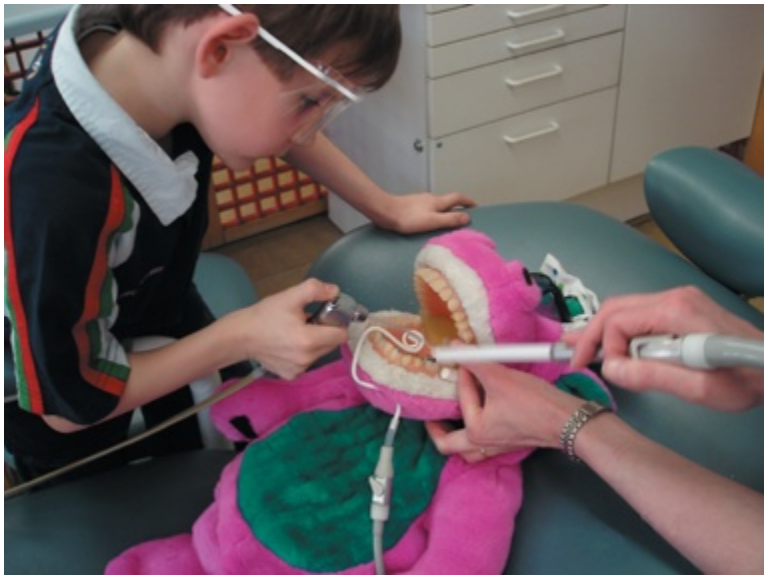
STEPS IN MODELING

- Childs attention is obtained
- Retention of the observed behavior
- Motor reproduction depends up on the level of skills the child has attained
- When reinforced the observed will be performed

Modelling

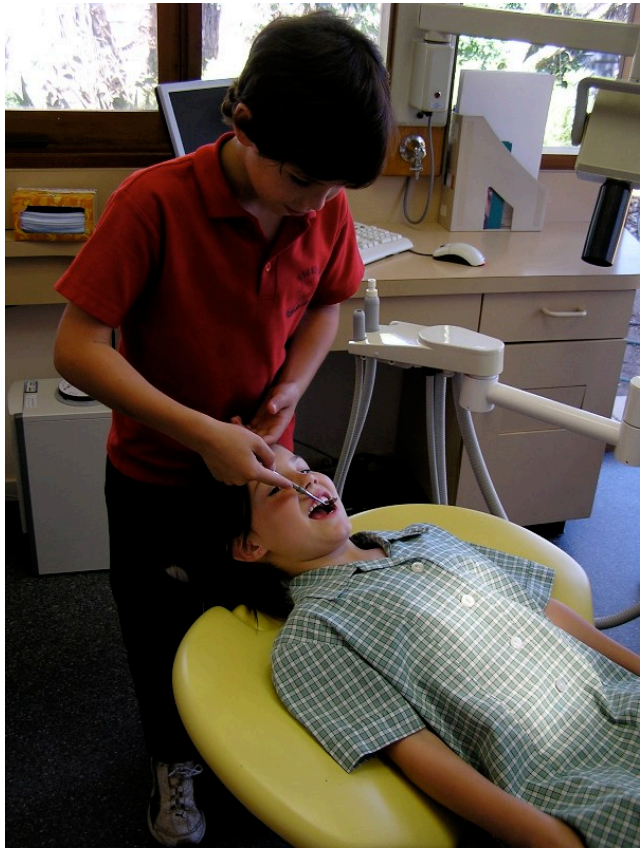
- Use of audiovisual or live models





Modelling

- Films or videotapes
- Live patient models (e.g. sibling, classmate)



Merits of modeling

1. Stimulates new behaviours
2. Facilitates desired behaviour in a more timely manner
3. Extinction of fear

(Rimm and Masters, 1974)

Modeling In Pediatric Dentistry

- **Older Sibling (Prestige).**
- **Younger Patient (“If he can do it, I can do it”).**
- **Multiple models (As single model might be presumed by the child to have special talents).**
- **Modeling film (Vicarious).**

Contingency Management (Reinforcement)

- The presentation or withdrawal of reinforces is termed contingency management.
- Tangible or social reward in response to a desired behaviour is positive reinforcement.

Types Of Reinforcers

POSITIVE

1. **Contingent presentation increases the frequency of the behavior**

NEGATIVE

1. **Contingent withdrawal increases the frequency of the behavior (termination of aversive stimulus)**

Classification Of Reinforcers

1. ***Material*** **: Most effective**
2. ***Social*** **: Praise (Good, Great), Positive facial expression (Smiling), Nearness (Talking), Physical contact (shaking hand).**
3. ***Activity*** **: Privilege of participating a preferred activity after performing a less preferred behavior. (Work first then you may play).**


Thank you next part in our next lecture

Behaviour management techniques

- **Voice control**
- **Physical restraint**
- **Hand – Over – mouth**
- **Pharmacological Management**

Voice control

- Loud voice in order to gain Childs attention. Once this is done, he may speak softly adjusting his voice to the activity of the child.
- Tone of the voice is critical
- Facial expressions must mirror the tone of voice

Aversive Conditioning (restraint)

Require lengthy briefing with parent

- Mouth props
- Parent or Dental assistant
- Body wrappings such as sheets
- Home (Hand Over Mouth Exercise)

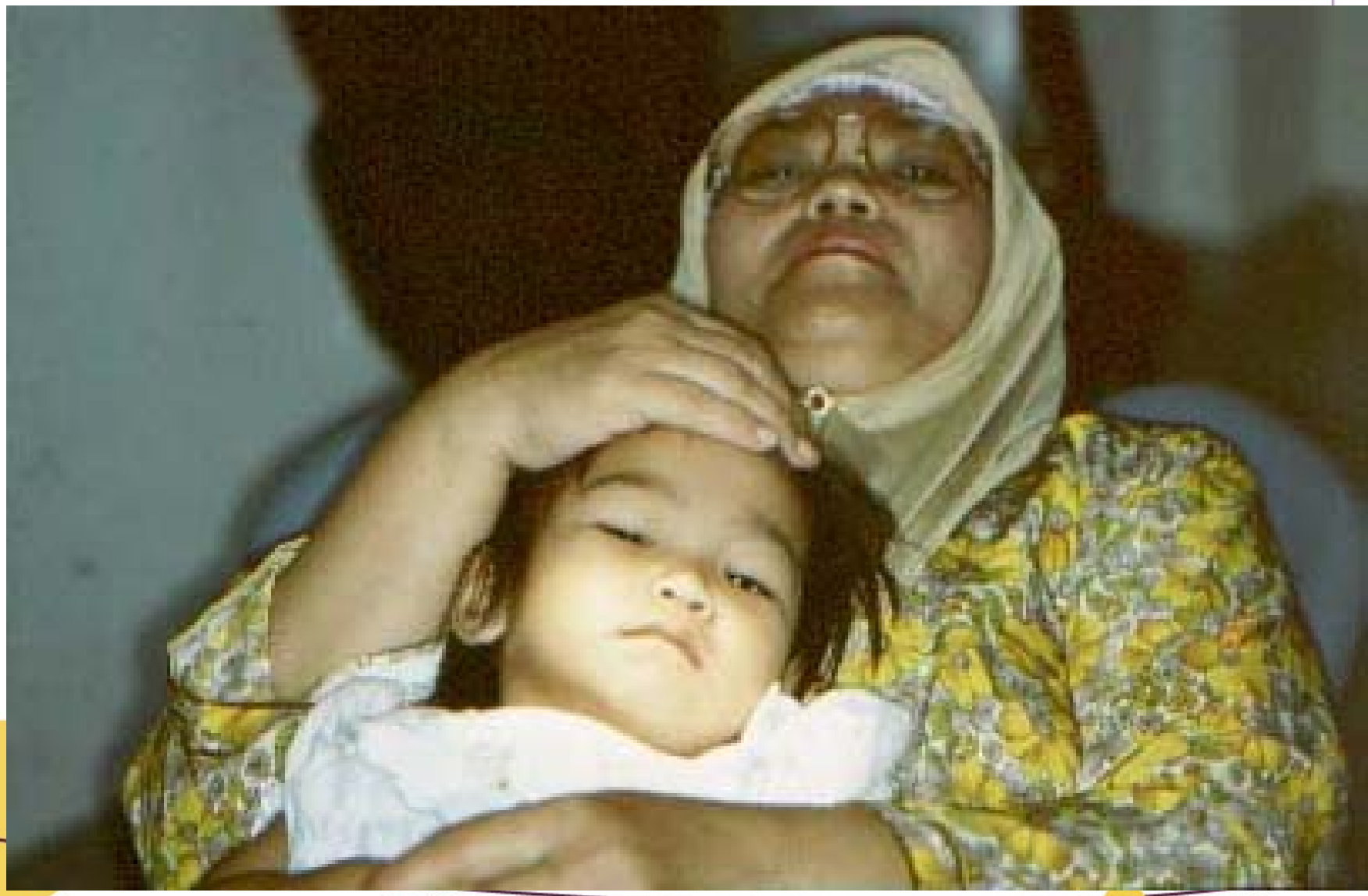
Mouth Props

- Used at the time of injection.
- When children become fatigue.
- Stubborn or Defiant children.
- Mentally or physically handicapped.
- Very young children

PARENT

- Parent help to control the movement of an infant.
- Child is seated facing forward in the mothers lap.
- One hand of the mother on the Childs forehead while the other covers the wrist.

Parents help to control child's movement



Sheets & Body wrappings

- Restraint techniques still eg. Papoose boards, Vac-Pac
- Restrict the patients movements
- Used in young children

Hand – Over – Mouth Technic

Indication

1. **Normal children who are momentarily hysterical or defiant.**
2. **Mature to understand simple verbal commands.**

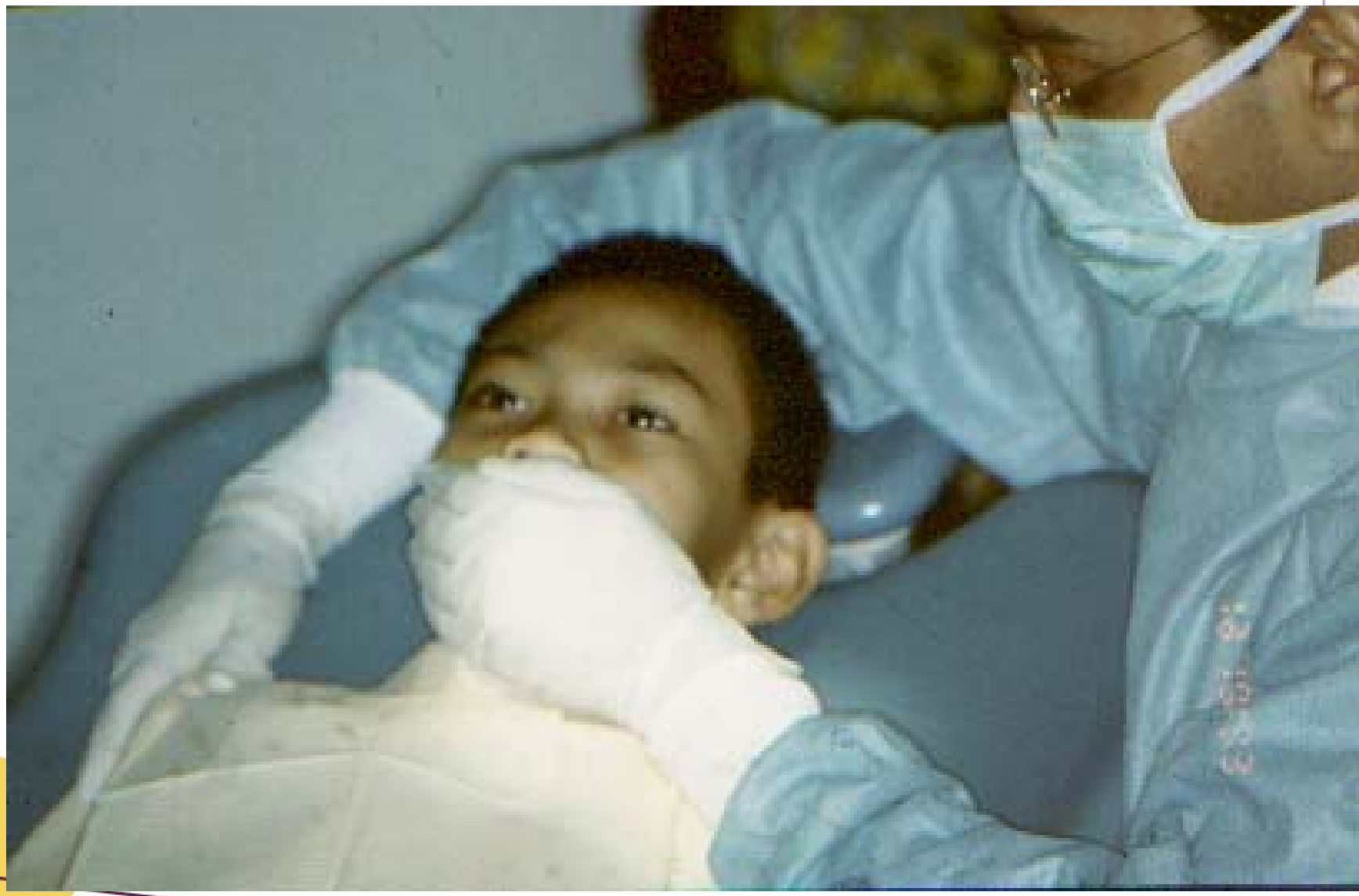
Contraindication of HOME

1. **Very young children.**
2. **Immature and frightened children.**
3. **Physical, mental or emotional handicap.**

Purpose Of HOME

- To gain Childs attention.
- Stop verbal outburst.
- Establish communication.

HOME



Technic of HOME

1. Firmly place your hand over the Childs mouth .

2. With the verbal out bust completely stopped the child is told that when he cooperates the hand will be removed.

Pharmacological Behaviour Management

Pharmacological management

Dependent on:

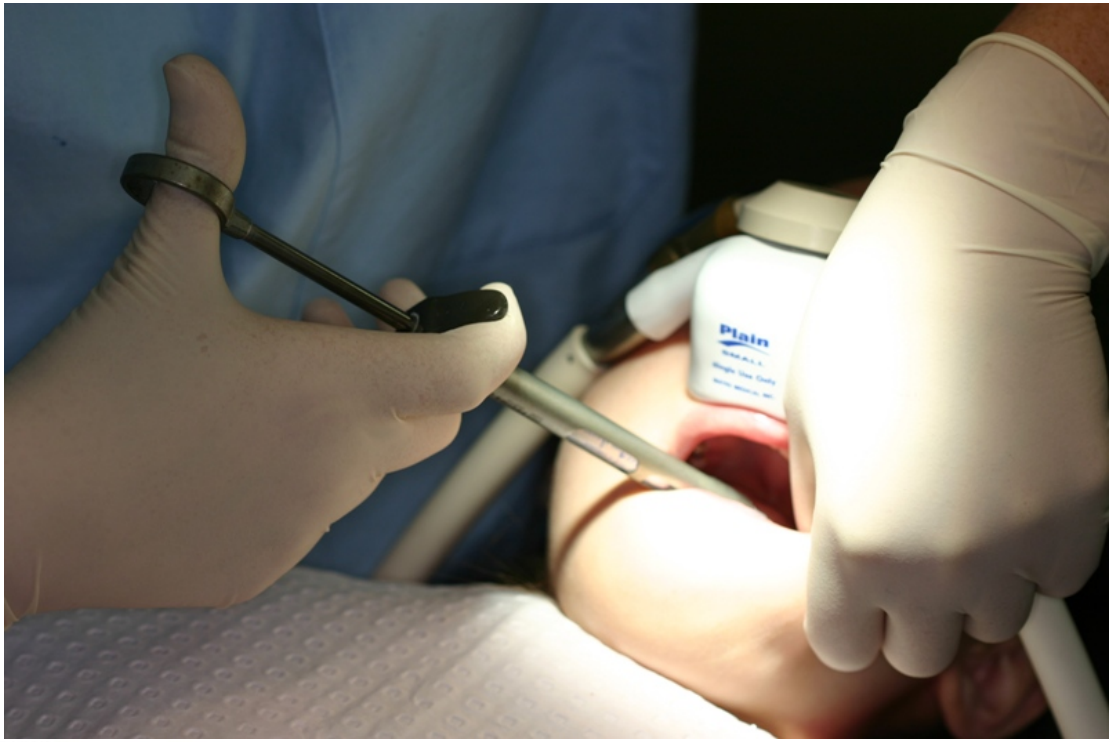
- Patient age
- Patient behaviour and co-operation
- Treatment required
- Medical conditions
- Distance traveled
- Language
- Education

Forms of Intervention

- Local anaesthesia
- Nitrous oxide sedation
- Oral or nasal sedation
- General anaesthesia
- IV sedation

Local Anaesthesia

Management of intra-operative pain overrides all other management objectives



Local anaesthesia

- Treatment plan appropriately:

  No medical contra-indications

  Maximum allowable dose (4.4 mg/kg: 2% lidocaine = 20mg/ml; 2.2 ml carpule =44mg/carpule)

  Need for pharmacological behaviour management in case of needle phobia

Carpule = 2.2ml

2% LA = 0.02mg/l = 20mg/ml

every carpule = 2.2 x 20 = 44mg LA

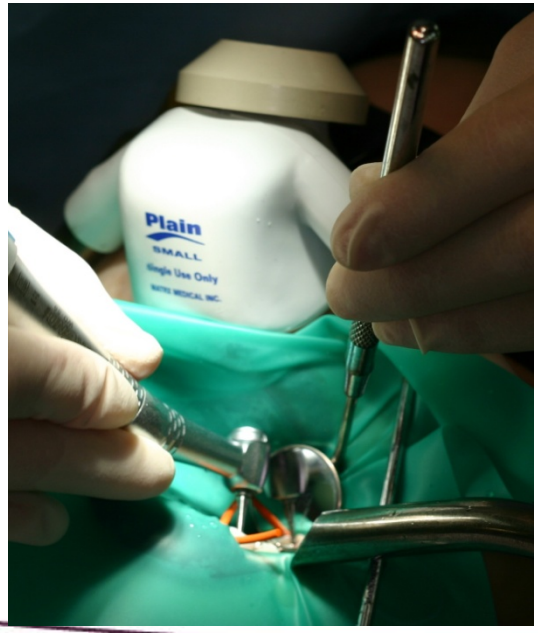
Conscious sedation

- A state of depression of the central nervous system
- Reduces anxiety
- Patient is still able to independently maintain an open mouth, adequate function of protective reflexes (e.g laryngeal reflex) & respond sensibly to verbal commands
- The drugs used carry a margin of safety sufficient to render unintended loss of consciousness extremely unlikely

(American Academy of Pediatricians)

Indications for use

- Patients who are mildly to moderately anxious (i.e co-operative)
- Fear of needles/ Needle Phobic
- Preschool child
- Child with some special needs or medical compromise



However…

- Patient must be medically fit for a sedative procedure:
- ASA I: normally healthy patient
- ASA II: patient with mild systemic disease
- ASA III: NO! (patient has a severe systemic disease)

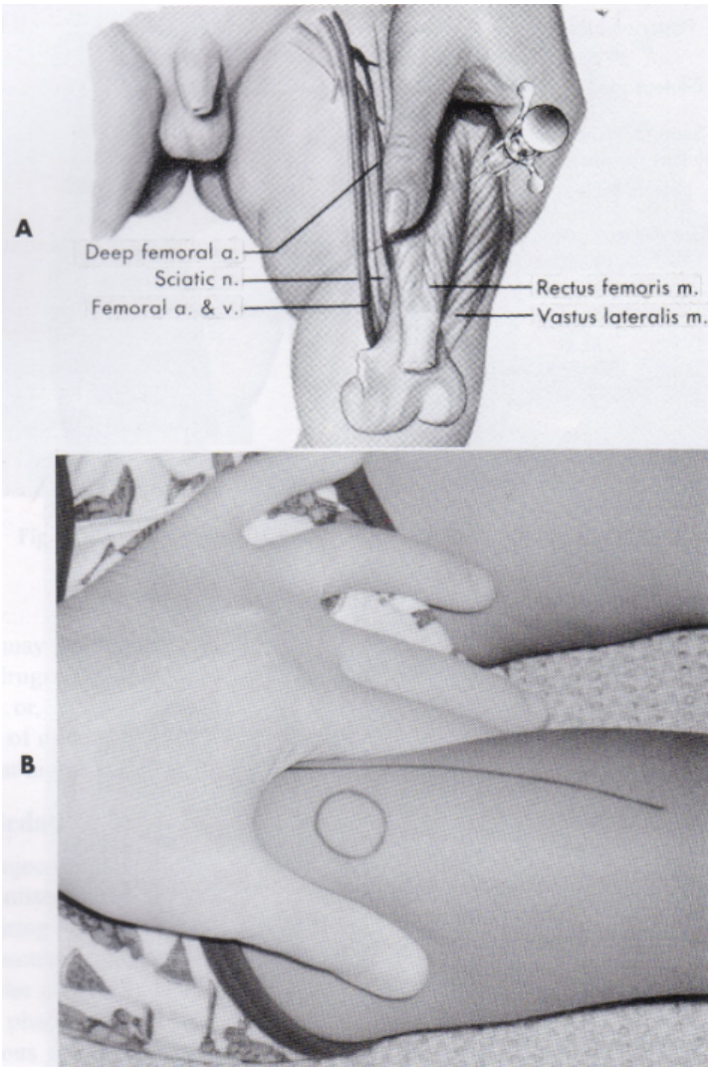
Oral Sedation

- **Sedative agent selected.**
- **Dose is calculated.**
- **Once administered the child is monitored.**
- **Desired effect is observed within 30 to 60 minutes.**

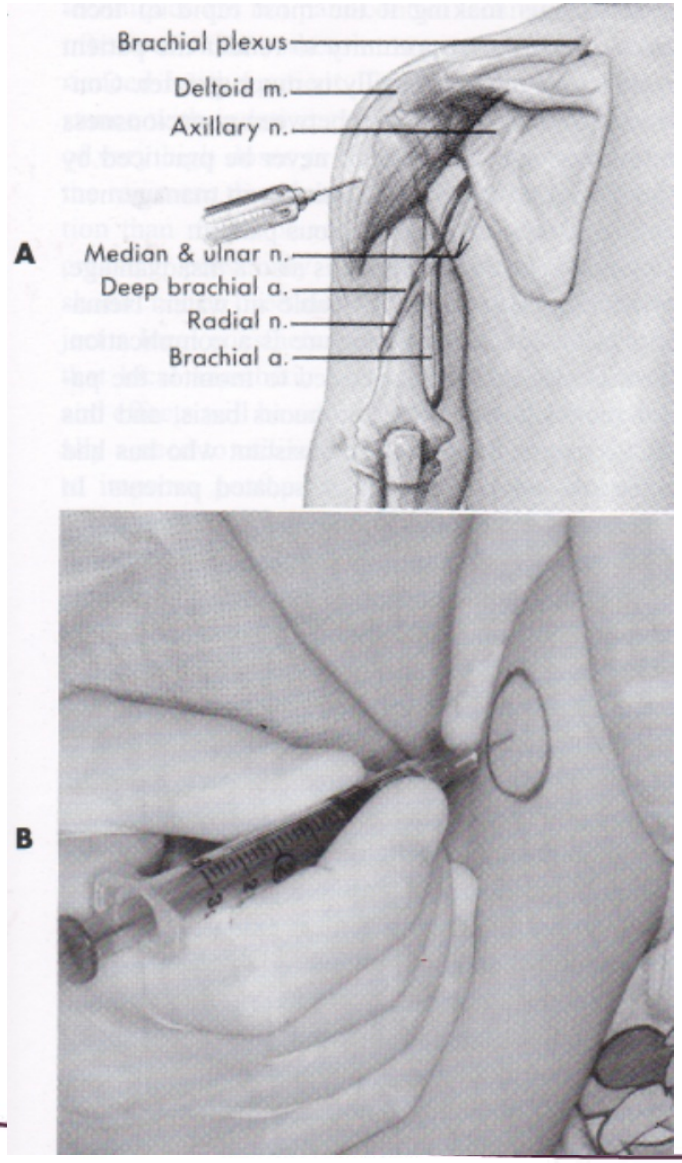
Intramuscular Sedation

- **Injection site : a) upper & outer quadrant of gluteal region. b) Anterior aspect of the thigh(vastus lateralis muscle). c) Middle of the posterior lateral aspect of deltoid muscle.**
- **Dose calculated & once administered the effect is observed with in 20 minutes.**

Anatomy and injection in the anterior thigh region



Anatomy and injection in the deltoid region



Intravenous sedation

- Sedation levels in which the patient remains conscious.
- Venipuncture is difficult in children.
- Vein size is small.
- Onset of action is about 20 to25 seconds.
- Drug used is Benzodiazepines.

The goal of behaviour management:

- To develop a positive dental attitude

Summary

- Assessing of behaviour = understanding of normal patterns of development
- Behaviour management
  - = effective communication
  - = fostering a positive dental attitude
  - #NOT !!! Getting the treatment done despite how the patient copes

Fostering a Positive Dental Attitude

Thank you