Treatment problems in dentistry.

Their causes and management

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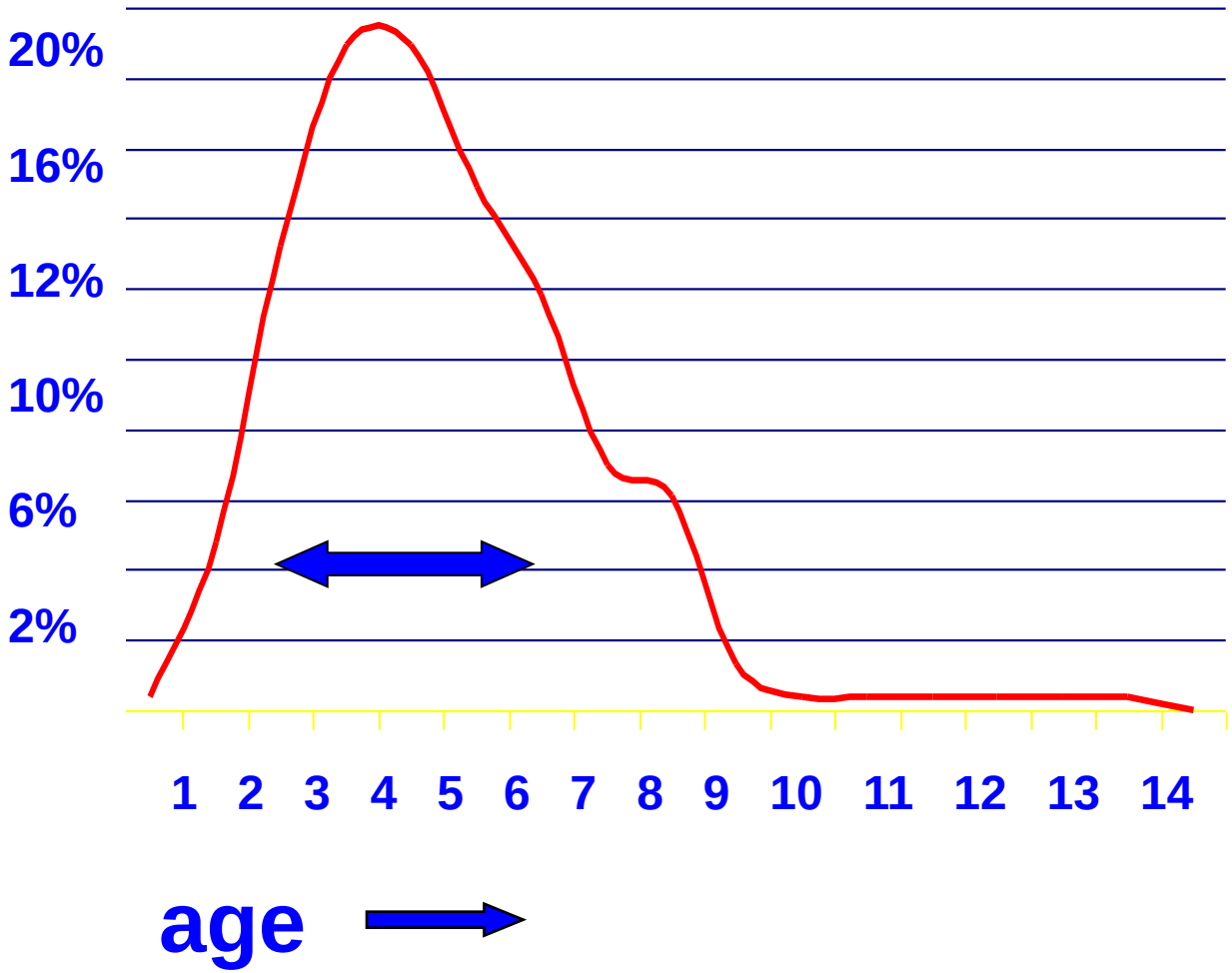
Referred children 2011 (n=2539)



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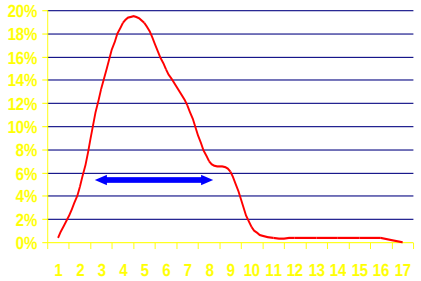


- Children treated by general practitioners
- Secondary dental care clinics
- Children referred for treatment problems or their expectancy
  - Dental anxiety
  - Dental behavior management problems
- After treatment and stabilisation of the caries status and behavior→ return to GP

RESEARCH INDICATES….

professional restorative treatment is a repetitive aversive stimulus.

That means there is noise, pain, discomfort and negative emotions…

HOWEVER….

The only friendly dentist is a preventive dentist.

(with the risk of supervised neglect)

And that means….

The kid has to get used to the dentist and the dentist has to get used to the kid and its parents.

What is the reason of Dental Behaviour Management Problems (DBMP) during treatment?

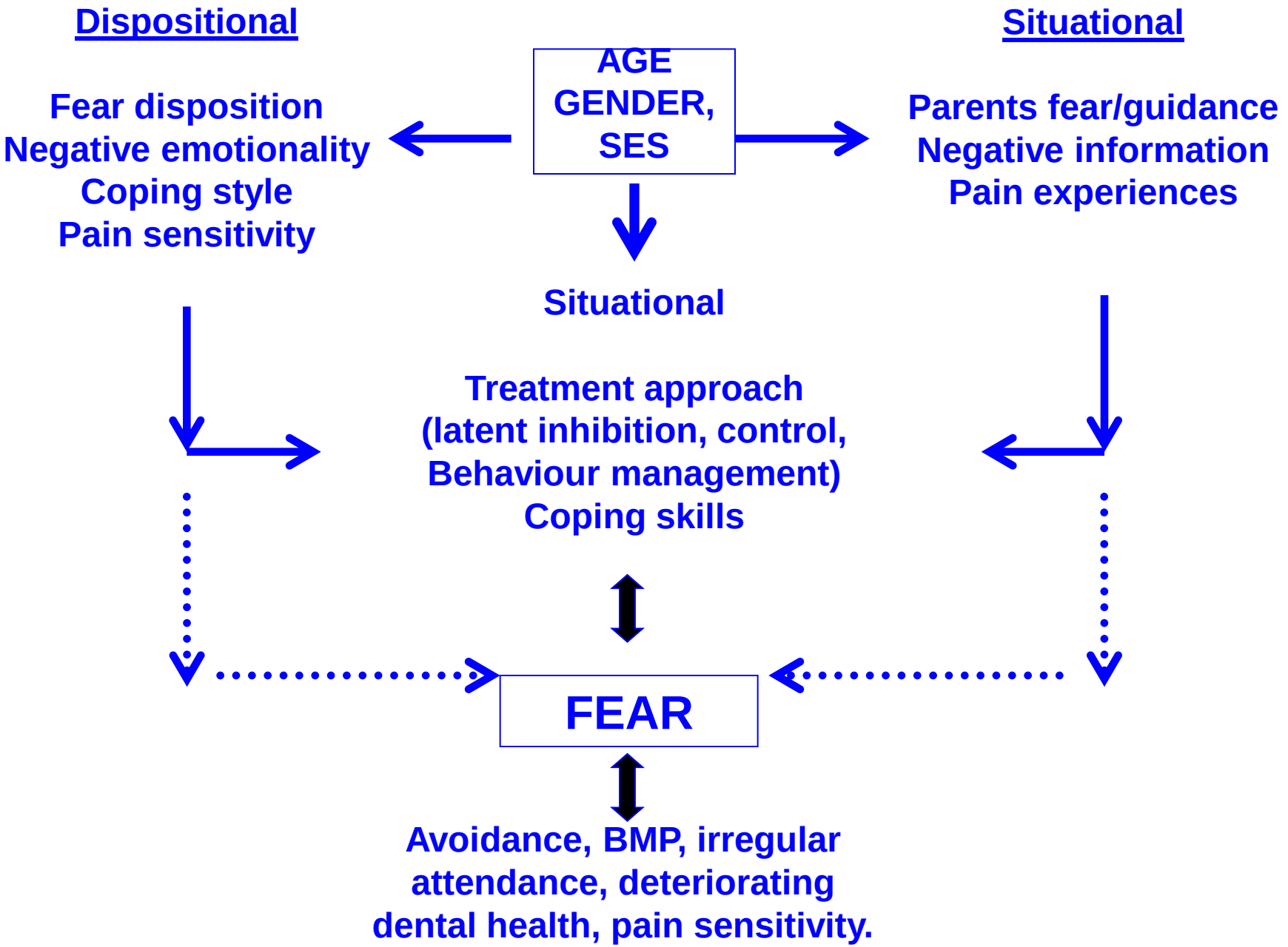
Research indicates there is no straightforward cause but a multifactorial nature.

Multifactorial?

- Dental anxiety
- Age related problems
- Nature
- Nurture
- Psychological problems
- Developmental problems

Ten Berge M, Veerkamp JSJ, Hoogstraten and Prins PJM. Clin diss 2001, 20-42.

Fear and anxiety


Dispositional
Situational
AGE
GENDER,
SES
Fear disposition
Negative emotionality
Coping style
Pain sensitivity
Parents fear/guidance
Negative information
Pain experiences
Situational
Treatment approach
(latent inhibition, control,
Behaviour management)
Coping skills
FEAR
Avoidance, BMP, irregular
attendance, deteriorating
dental health, pain sensitivity.

- In this schedule the middle part is were it is all about. This is were your skills will meat with all the (co-) factors that influence the outcome of the treatment.

- But you should realize you will need the accompanying information to run your treatment smoothly. To do this you need to ask and observe.

- To start you should realize that basically it all starts with a treatment that is too overwhelming for your patients. In facts it's an unbalance between the sensory input and the coping abilities of the kid.

- And by doing so you –as a professional- take all the additional information into account. Automatically, you don't even think about it. It is your second nature. Most of the times you don't know why you behave in a certain way.

The aim of today's lecture is to give tools and knowledge that you need to treat children. Why they behave in the way they do and the consequences for your treatment decisions, your temper and your judgment on the children and their parents.

john is a 4 yr old boy, functioning at an age appropriate level. In the hospital he found out that he did not like injections.

Dental anxiety ≠ DBMP

Dental anxiety is related to DBMP
…but DBMP are not always related to dental anxiety.

Sample: n=3204
Age: 4-11yrs
Fear: 61% has BMP
BMP: 27% is fearful

Klingberg G, Berggren U, Carlsson SG, Noren JG: Child dental fear: cause related factors and clinical effects. Eur J Oral Sci 1995: 103:405-12.

Age dependent child characteristics relate to dental anxiety

-those correlations diminish when growing older-

Klaassen MA, Veerkamp JSJ, Aartman IHA, Hoogstraten J: Stressful situations for toddlers: indications for dental anxiety?: J Dent Child 69 (5), Sept-Dec 2002

Dental anxiety and PARENTS?

Age dependent child characteristics relate to dental anxiety. Child rearing variables are less obvious…

J.B. Krikken, J.S.J. Veerkamp: Child rearing styles, dental anxiety and disruptive behaviour; an exploratory study: EAPD 9 (2): 23-28.

the first school visit
washing or cutting hair
cutting nails
swimming lessons.

Waiting for months	⟷	**A straight war zone**
Its fun!	⟷	**During sleep**
No problem	⟷	**A two parents job**
First one in line	⟷	**She has extra lessons**

The difference is not their experience, it's just the child

State and trait anxiety

Situational anxiety
Anxiety as a result of a difference in perceived individual vulnerability and the strenght of the opposing treat

anxiety a a character trait
a part of an individual's personality

The difference is not their experience, it's just the child

State and trait anxiety

develop happily and active, learning new skills gradually develop easily and possibly deal with his anxiety

no specific problem. The problem is the child itself. With many more new situations

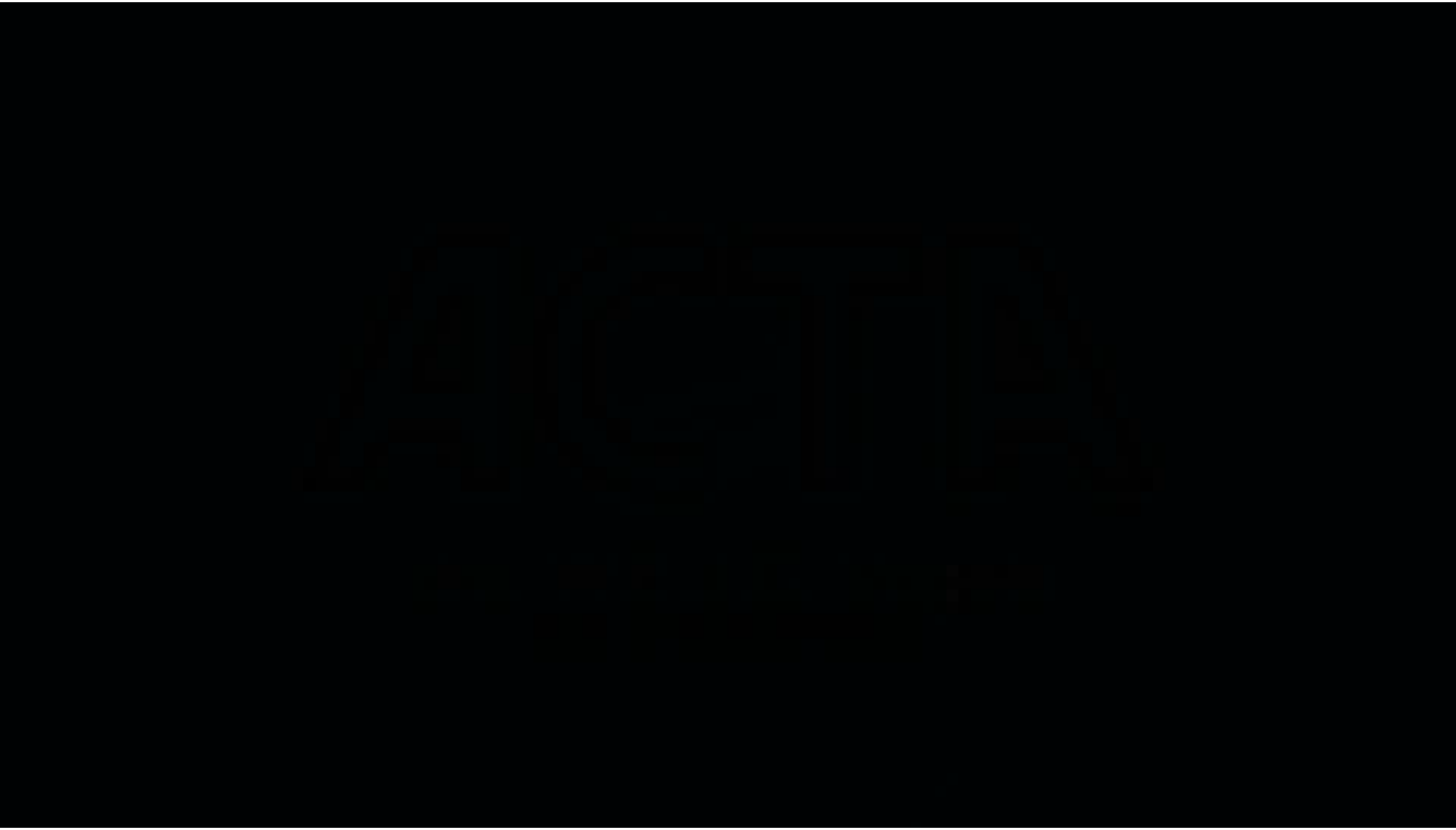
How afraid is your child of .....

not afraid at all	a little afraid	a fair amount afraid	pretty much afraid	very afraid
1	2	3	4	5

- 1. going to school for the first time.....-.....
- 2. dokters .....
- 3. injections .....
- 4. cutting hairs…… .....
- 5. washing hairs…….. .....
- 6. cutting nails…….....
- 7. water…….. .....
- 8. new things…. .....
- 9. insects……
- 10. swallowing pills… .....
- 11. having nose drops……....
- 12. staying with someone else.....……...
- 13. having a shower..…… .....
- 14. having a suppository .....
- 15. sudden noises……...

These questions will tell you the difference between state and trait anxiety. Whether the child has learned to fear or has a basic fearful attitude.

Score 15-75



Clinical consequences

Good self esteem
anticipation anxiety
no procedural anxiety

Anxiety in all treatment parts

Increased pain sensitivity

HOWEVER…

When referred, children in both groups can be treated by Paediatric dentists, reducing their dental anxiety at the same time.

Explain the parent

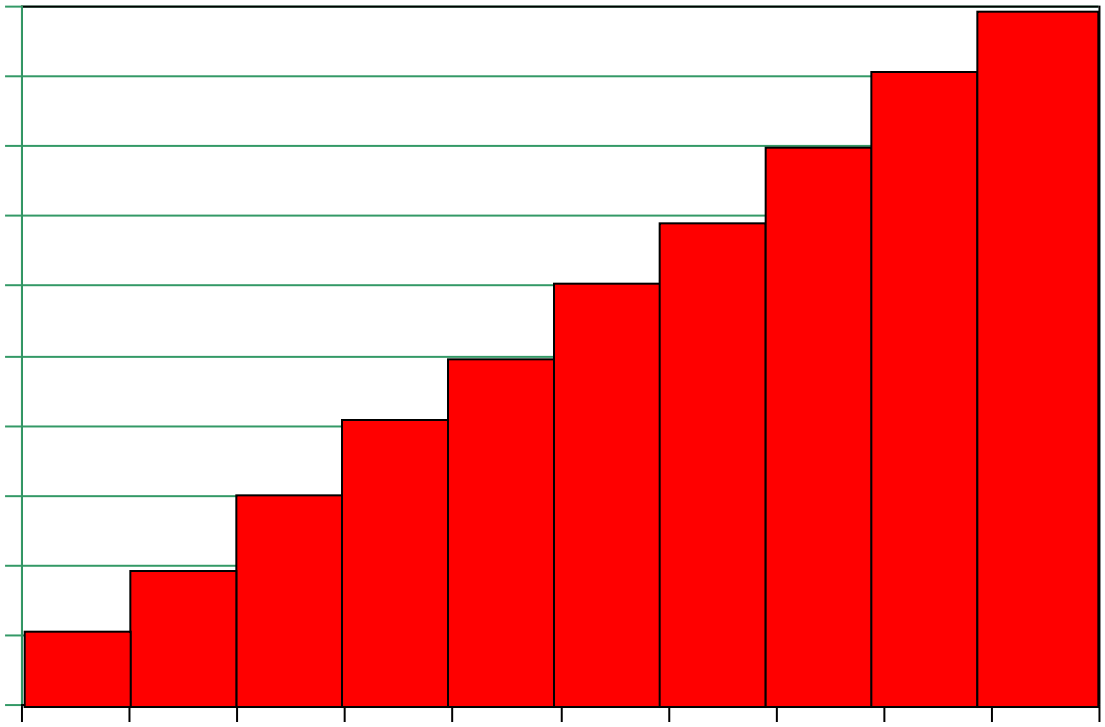
…ting rules and limits

Setting rul… …s

Acting slowly and gently

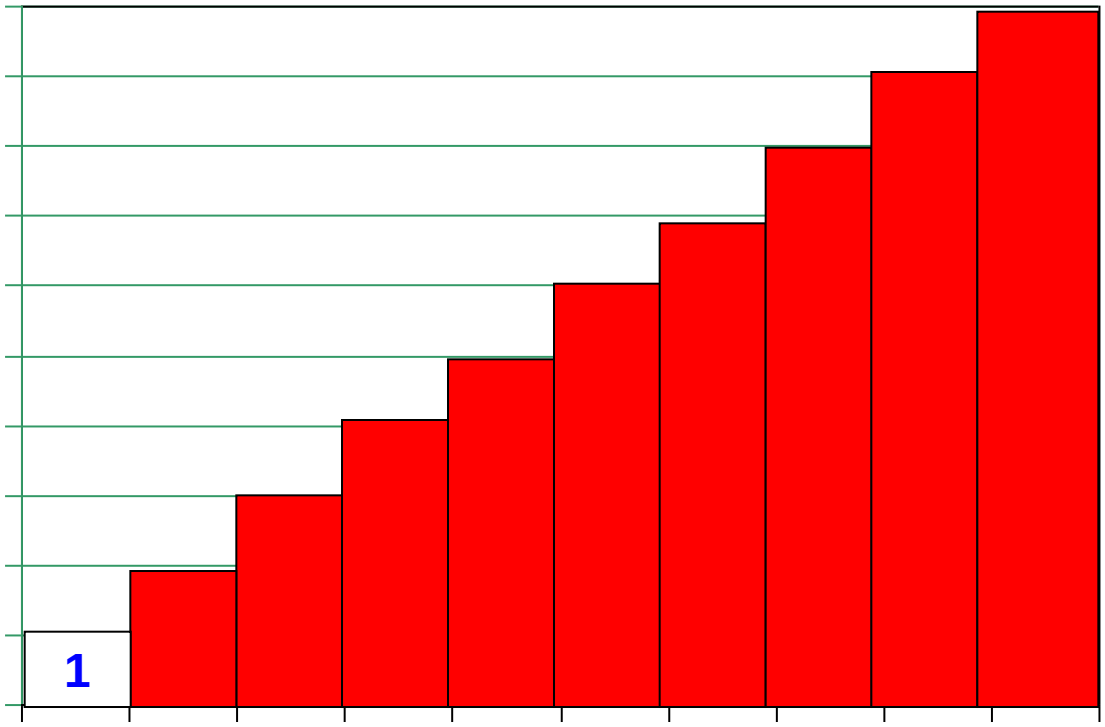
Patience, repeating, training

Graduate exposure



→ session

Graduate exposure (first step)



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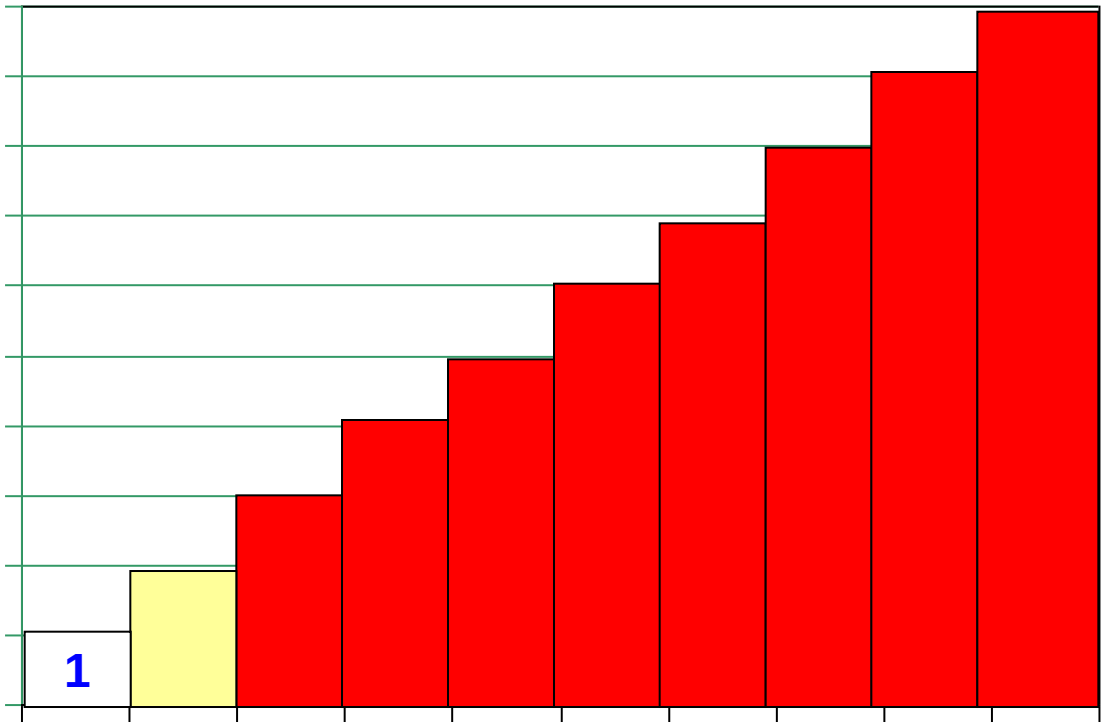

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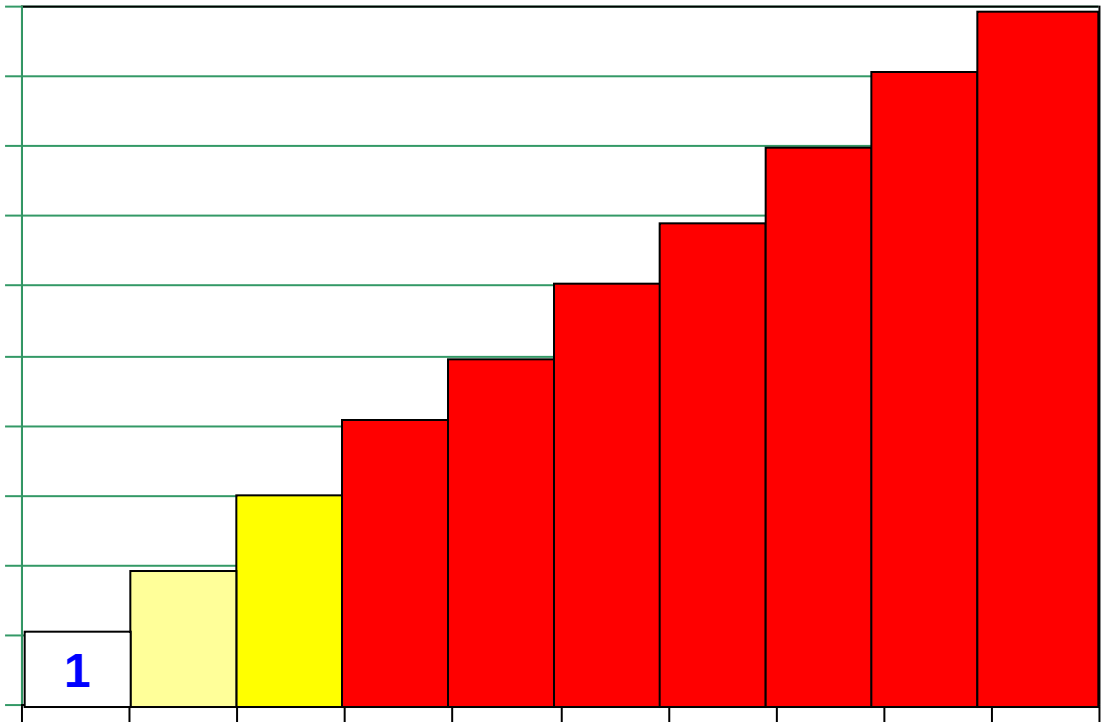

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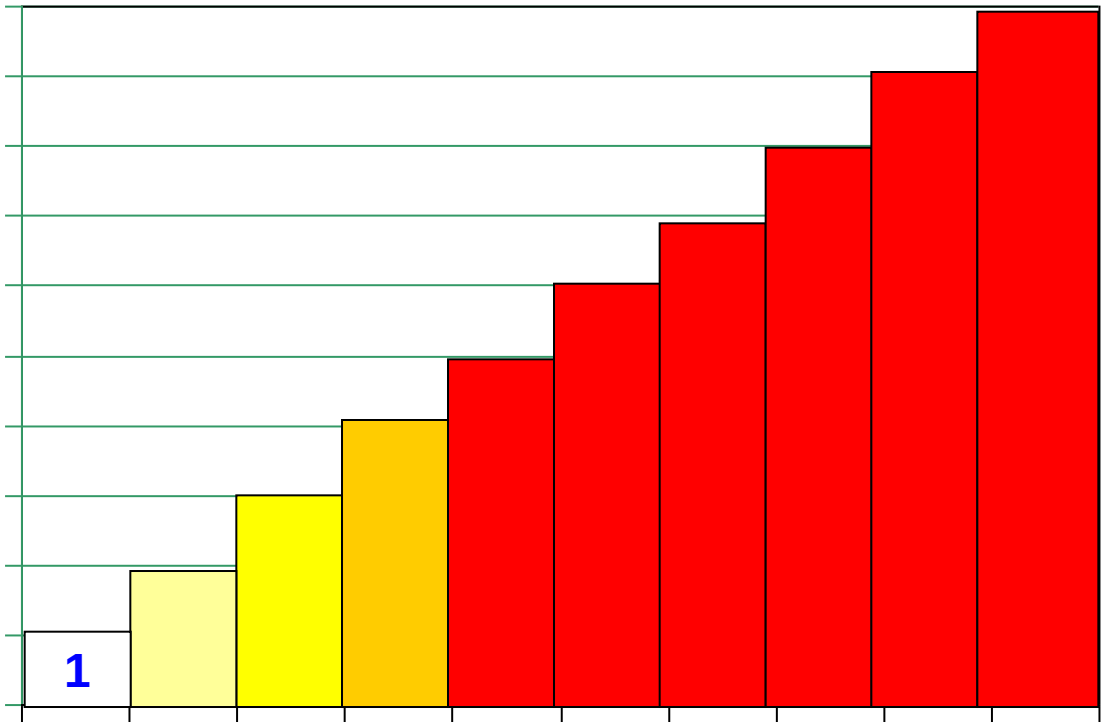

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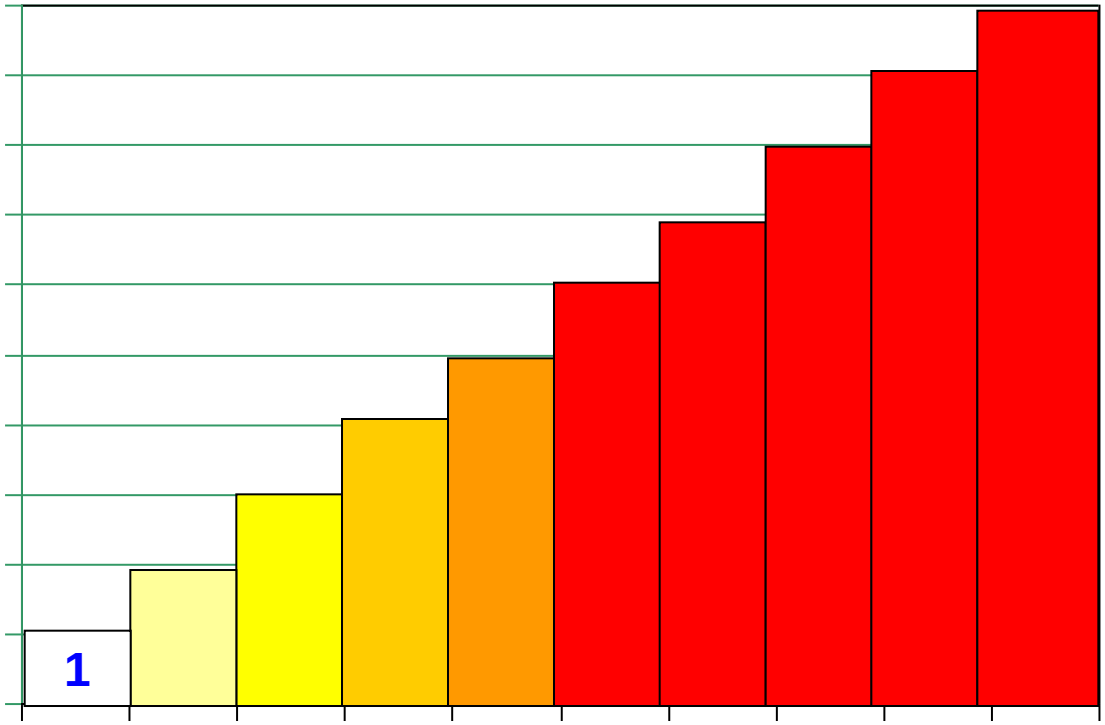

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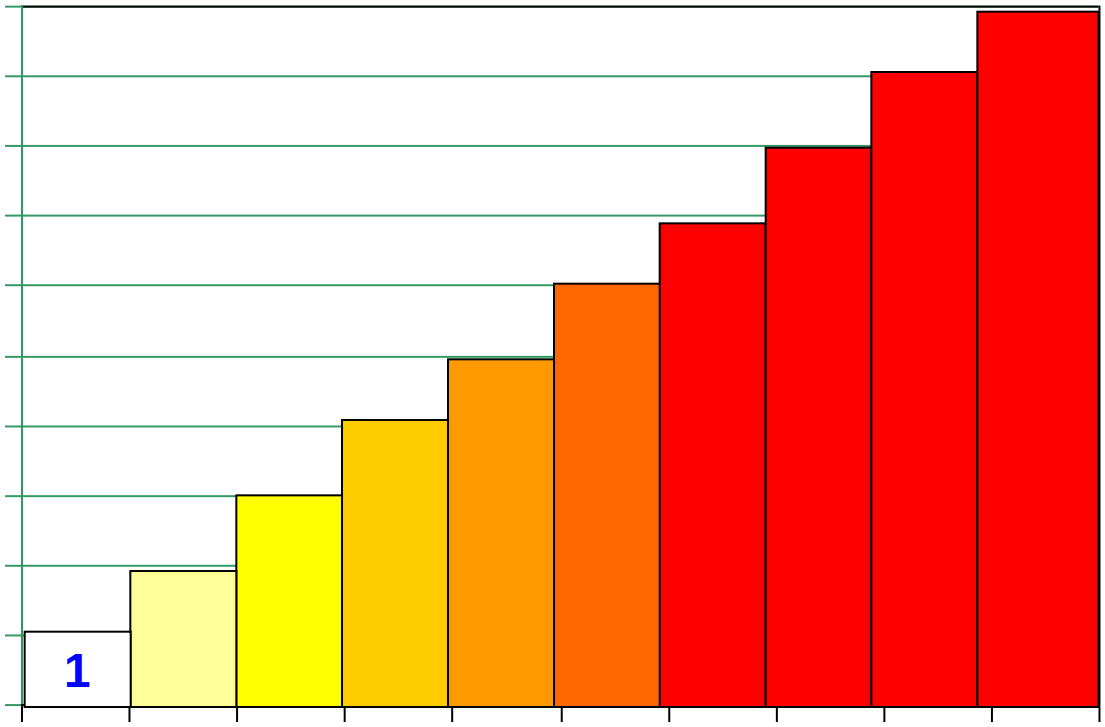
Graduate exposure (first step)



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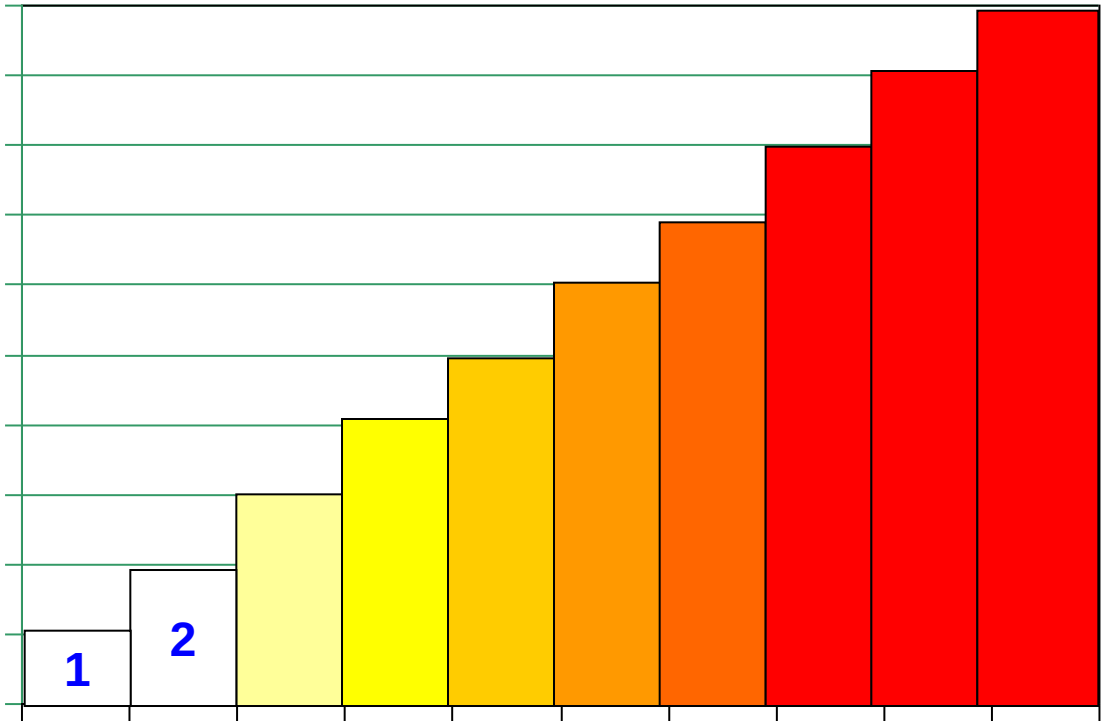
Graduate exposure (second step)



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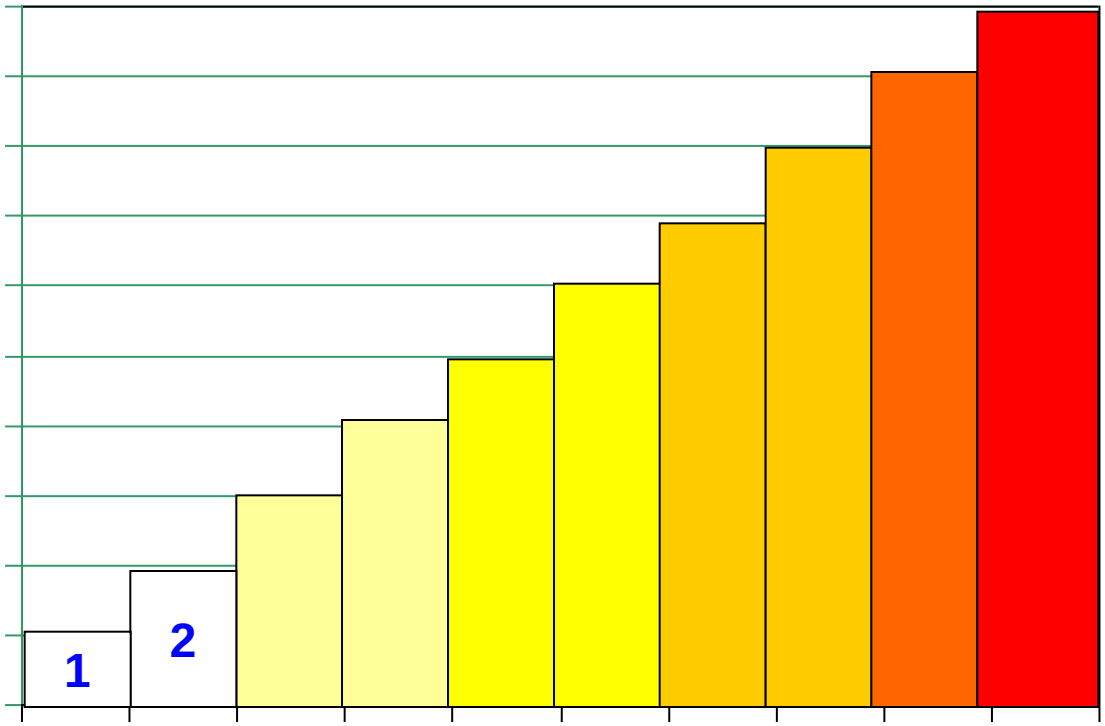
Graduate exposure (second step)



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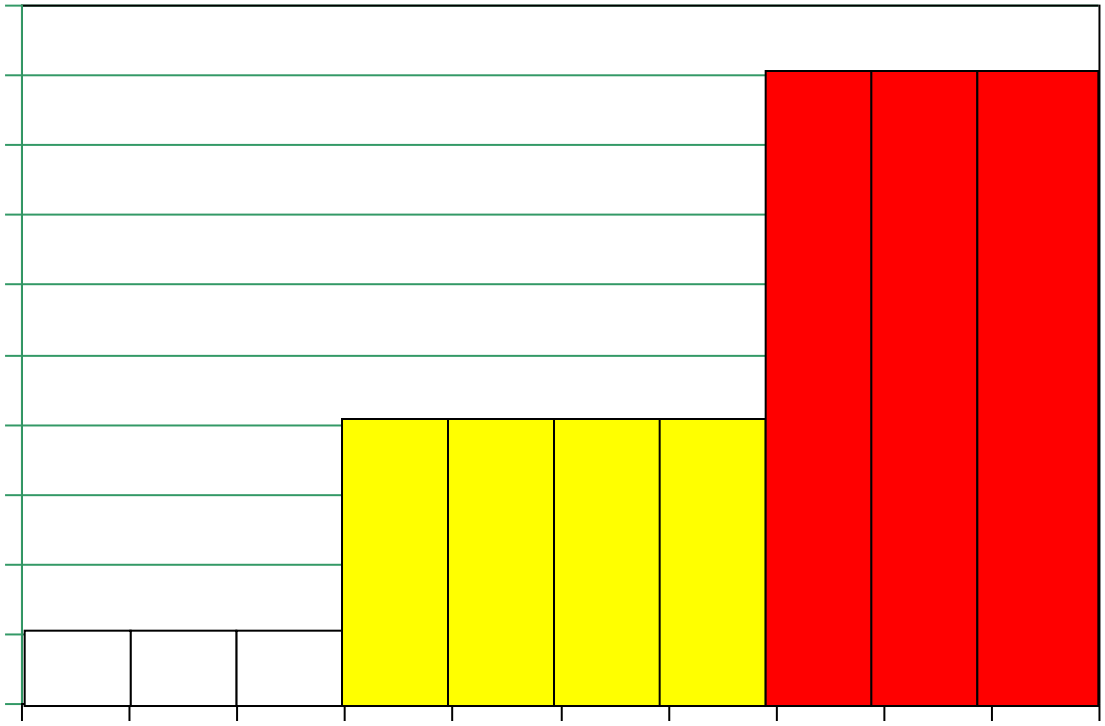
J.B. Krikken, J.S.J. Veerkamp: Child rearing styles, dental anxiety and disruptive behaviour; an exploratory study European Archives of Paediatric Dentistry 2008; 9:.23-28

Graduate exposure



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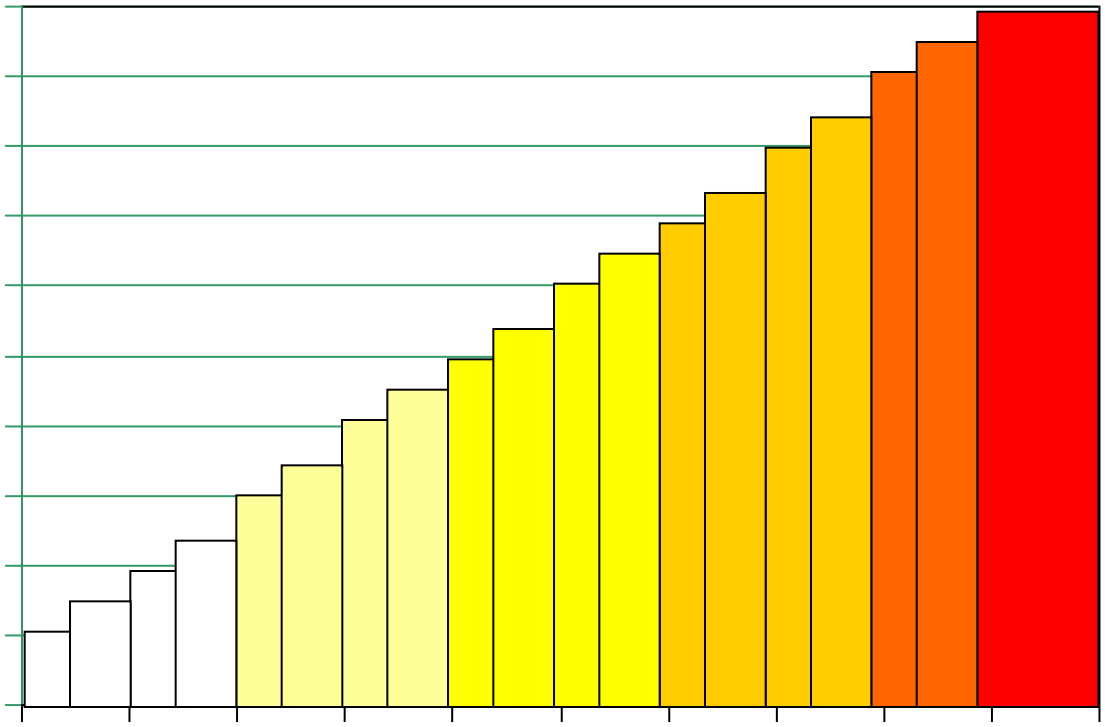
Graduate exposure



→ session

Psychological problems occur often in children referred for dental treatment.

Brown 1986, Liddel 1990, Weiner 1990, Raadal 1995, Berge M ten, 1999.

Diagnosing psychological problems

As a support for your treatment approach

The use of a questionnaire

- Assessment of different types of child behaviour
- Relation routine- vs dental child behaviour
- Picking/selecting the right approach
    - Routine
    - Subgroups

CBCL http://www.aseba.org/

Achenbach System of Empirically Based Assessment

- First part: 20 questions on competencies in school, social contacts and activities.
- Second part: 118 specific questions on more or less daily occurring emotional and behavioural problems.
- Part of a diagnostic process. Directs information to create a diagnosis.
- Reflects the perception of the reporter in a standardized report of problem behaviour.

Key informers

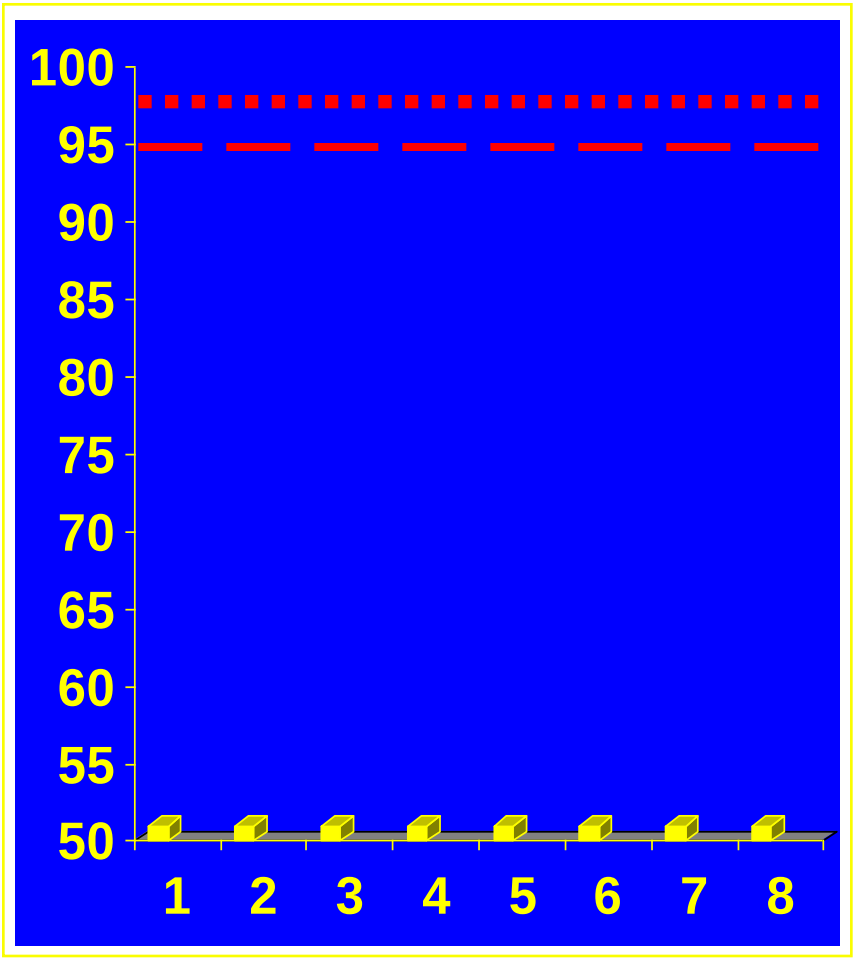
- PARENTS; mostly best aware of the child's behaviour.
  - Day/night, home/outside, large time span
- TEACHERS: clear image of the child at school
  - Comparing with peers, often closely related with the child

Disturbance of perception

- PARENTS; unconsciously trying to influence the diagnostic framework (under-/over reporting)
- Situational aspects that influence the behaviour are out of sight. Different behaviour in different situations (who is reporting; mum/dad?)
- Unconscious motives in dealing with the problems as well.

Child Behaviour Checklist

Clinically manifest problems……
Borderline problems----------

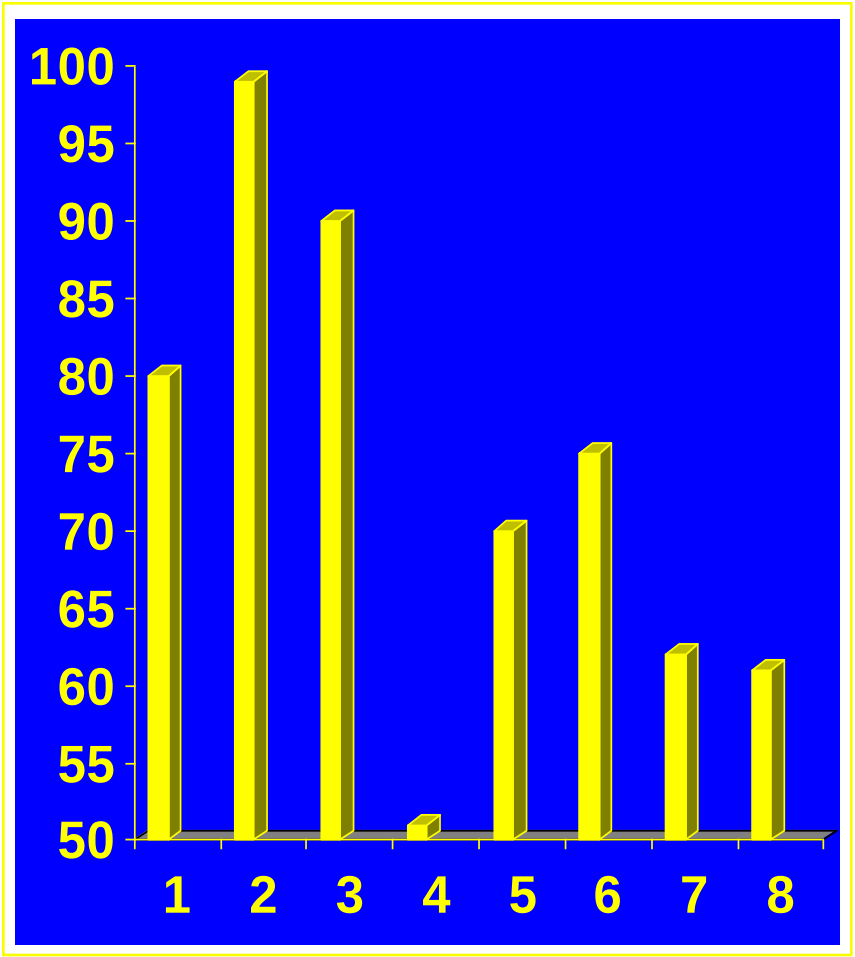


Average profile →→

Child Behaviour Checklist

Internalising profile

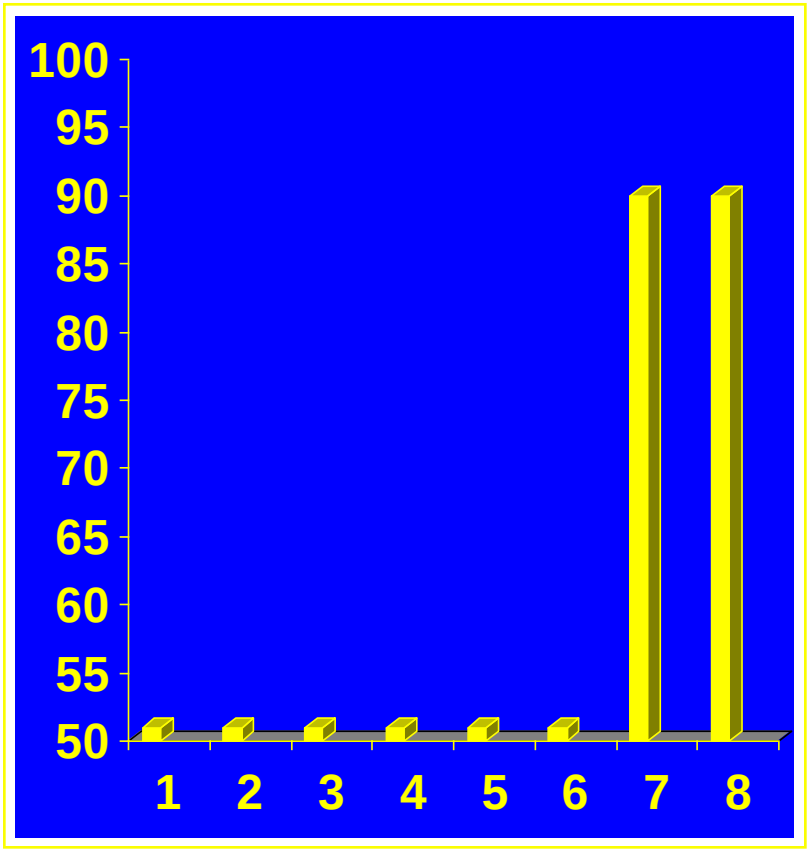
- **1 Withdrawal**
- **2 Somatic Complaints**
- **3 Fear/Depression**
- 4 Social problems
- 5 Thought problems
- 6 Attention problems
- 7 Delinquency
- 8 Aggression



Child Behaviour Checklist

Externalising profile

- 1 Withdrawal
- 2 Somatic Complaints
- 3 Fear/Depression
- 4 Social problems
- 5 Thought problems
- 6 Attention problems
- **7 Delinquency**
- **8 Aggression**



SDQ Strength and difficulty questionnaire

- http://www.sdqinfo.org/
  - View and downloads, Language: German

- ***25 items on psychological attributes***
  - **emotional symptoms (5 items)**
  - **conduct problems (5 items)**
  - **hyperactivity/inattention (5 items)**
  - **peer relationship problems (5 items)**
  - **prosocial behaviour (5 items)**

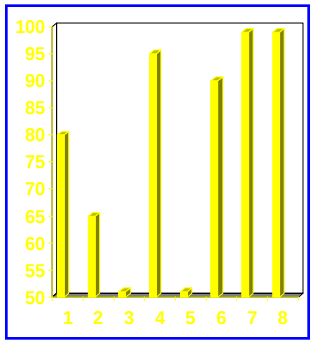
SDQ. Strength and difficulty questionnaire

- http://www.sdqinfo.org/
  - View and downloads, Language: German

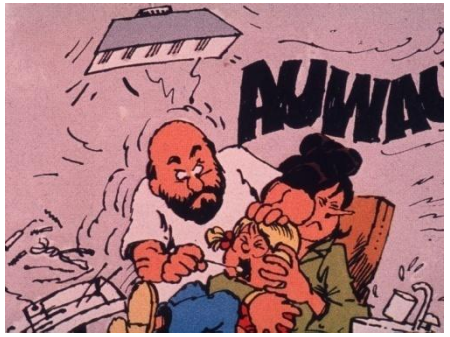
AN IMPACT SUPPLEMENT
provides useful additional information for clinicians and researchers with an interest in psychiatric case reports

FOLLOW UP QUESTIONS
Two evaluative questions to give feedback after an intervention.

Behavior during dental treatment of children referred for BMP, is not related to their psychological profile.

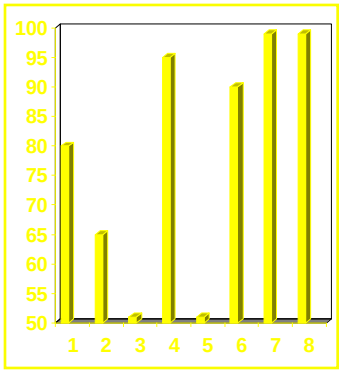


CBCL



Klaassen M.A., Veerkamp JSJ, Hoogstraten J.: Predicting dental anxiety. The clinical value of anxiety questionnaires: an explorative study. Eur. J Paed Dent 4 (4) 171-177 (2003)

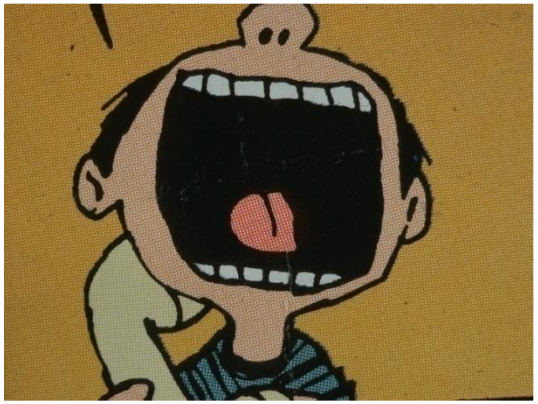
Only the behavior after the dental treatment correlates slightly.



CBCL

Klaassen M.A., Veerkamp JSJ, Hoogstraten J.: Predicting dental anxiety. The clinical value of anxiety questionnaires: an explorative study. Eur. J Paed Dent 4 (4) 171-177(2003)

Psychological problems

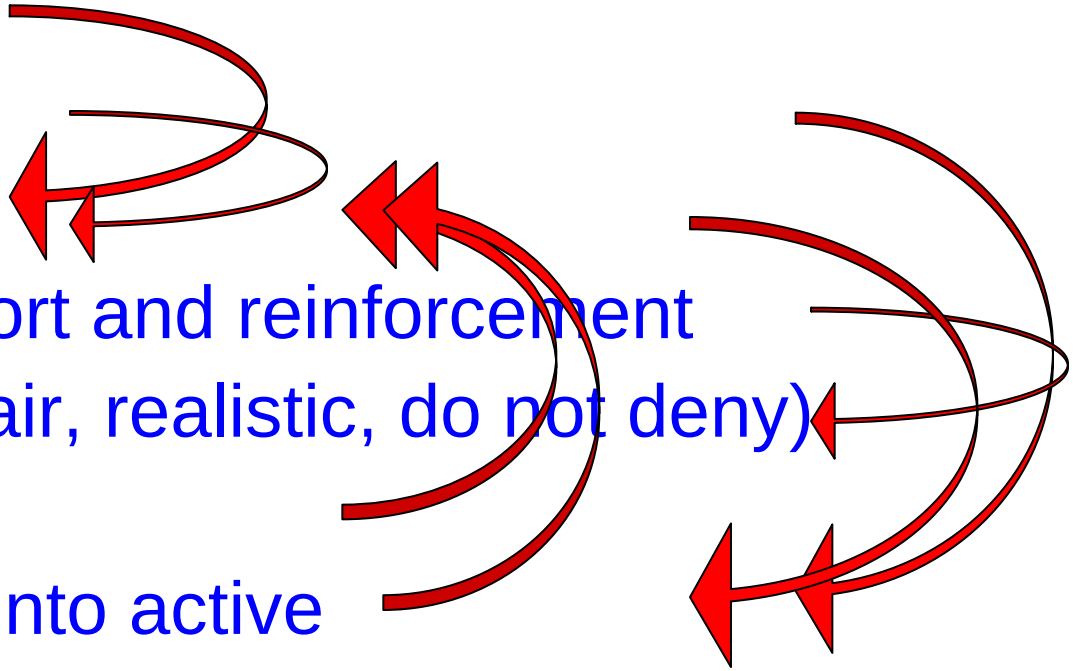


However, referred children in this group can be treated by Paediatric Dentists, reducing their dental anxiety at the same time.

Psychological problem do not change our basic treatment approach, after diagnosis we only need more time and attention, especially to the parent.

Basic strategies

- Distraction
- Control
- Predictability
- Positive support and reinforcement
- Realism (be fair, realistic, do not deny)
- Stepwise
- Turn passive into active



(Choice, speed and power depend on age)

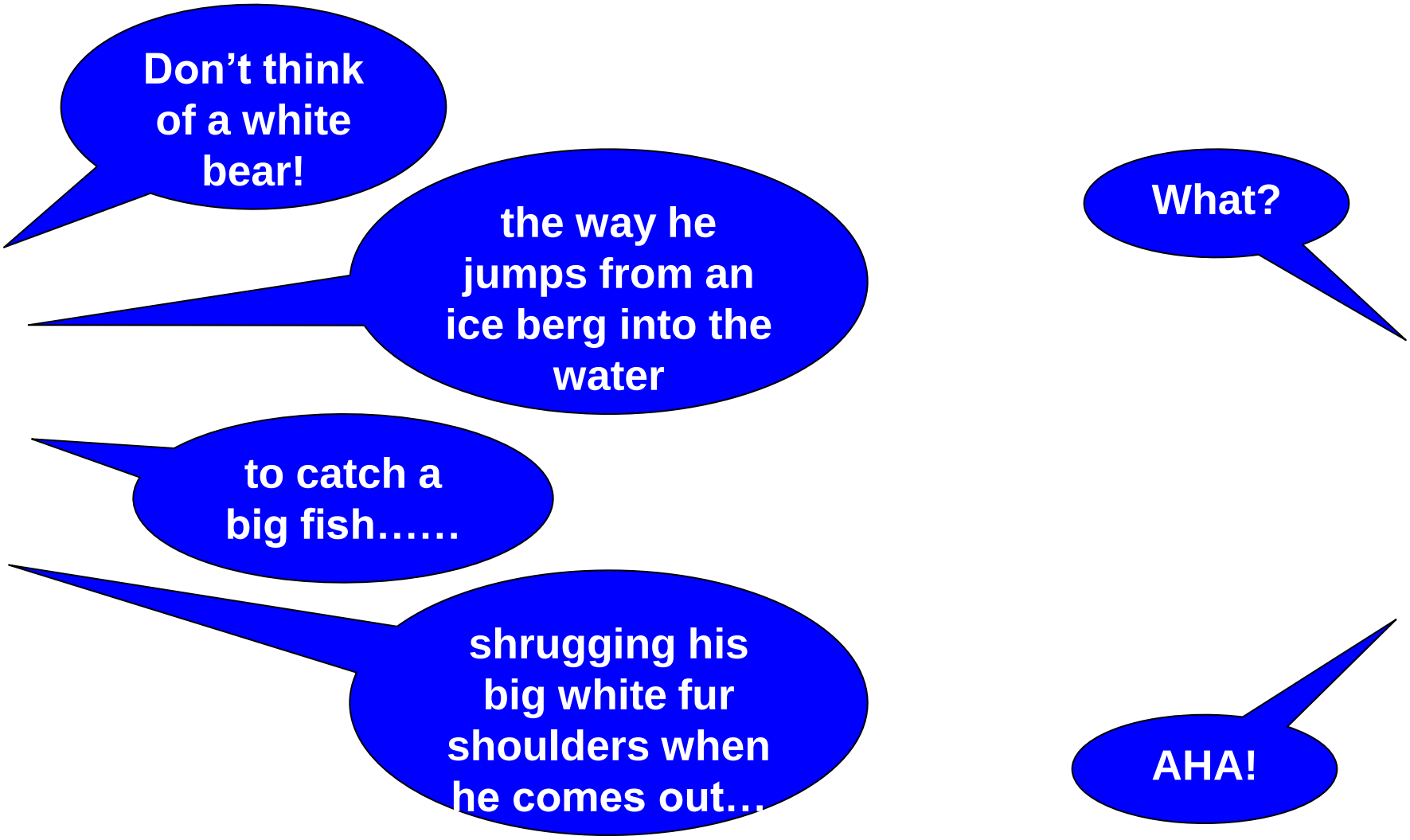
Basic strategies

- Distraction
- Control
- Predictability
- Positive support and [illegible]ment
- Realism (be fa[illegible]ic, do not deny)
- Stepwi[illegible]
- Tu[illegible]ve into active

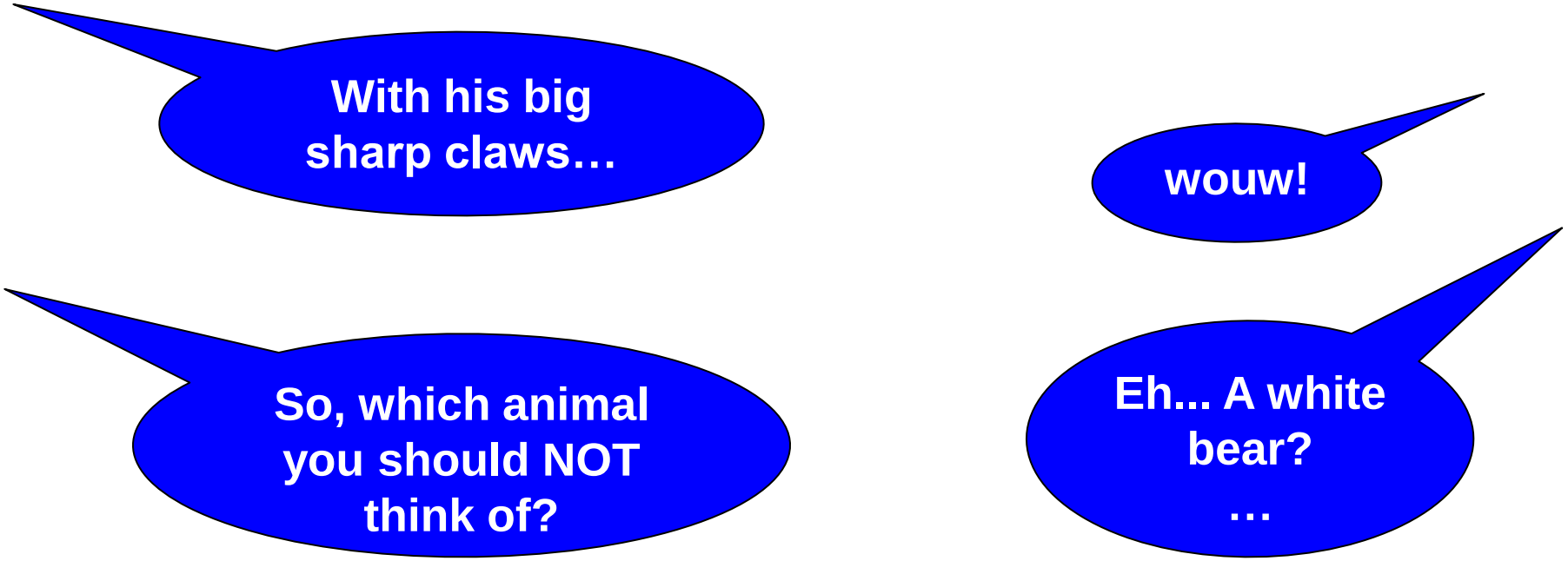
Do not say no….

(Choice, speed and power depend on age)

The white bear principle



The white bear principle



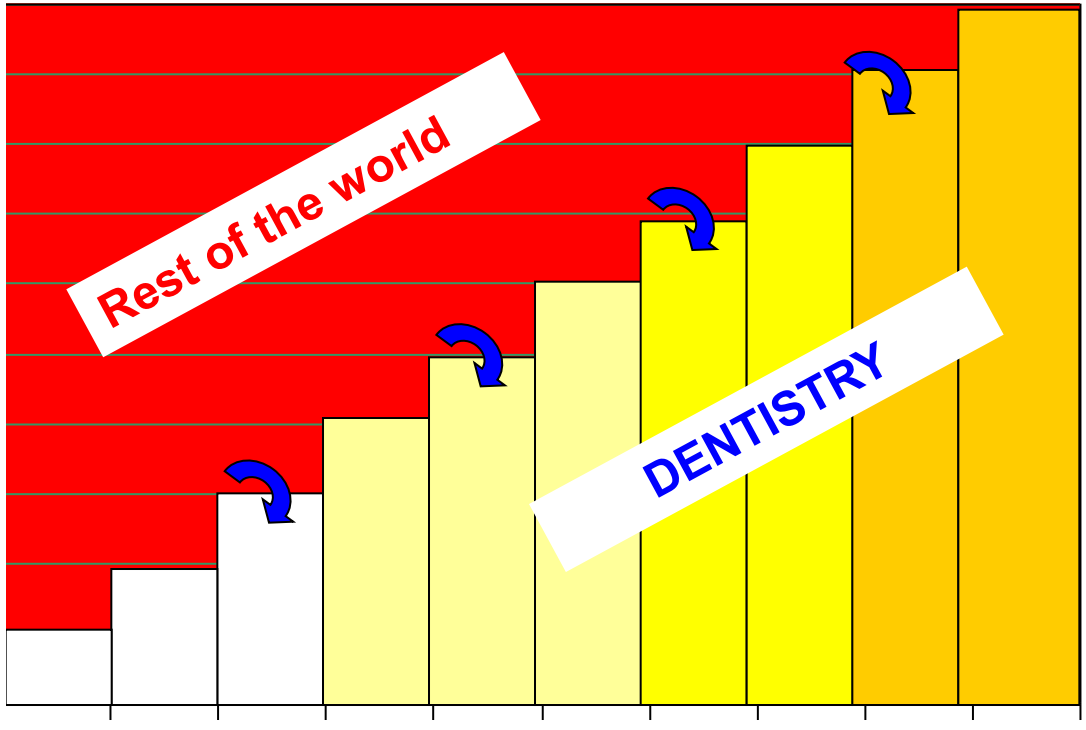
Exercise: skip the bear and fill in anxiety, needle, drill or whatever.
How relaxing do you think the statement is?

→ NO denies but focuses attention

The fearful type

Guidance principle → TSD

- Stop negative internal speech
- External structure (guidance)
- Distraction, predictable (keep talking)
- Advice to hold own pacifiers
- Adjust to known safe and controlled things.



→ session

locked inside

Guidance principle → keep in touch

- Inviting, activating, create variation
- Flexibility: go with the flow
- Non-verbal communication
- Creativity
- Let them collect tokens

(must be desirable and attractive)

Somatic complaints

Approach: treatment with distraction

- Relaxation
- Breathing
- Watch body language
- Hypnosis guidance principle:

Diagnosis: Are the complaints visible during daily life
e.g. gagging reflex

The distracted and impulsive type

Guidance principles. → Rules and limits.

Approach: treatment without stimuli

- **Predictable, everything arranged**
- **Basic rhythm: stress-relaxation**
- **Reduce (negative) stimuli**
- **Create clear structure: stick to your approach (say what you do and do what you say)**

The unlimited type

Guidance principles →strict rules and a solid structure

- Outline rules and deals
- Behaviour guidelines
- Feedback
- Rewards
- Responsibility
- competition might reinforce

Latent inhibition

- A special form of conditioning is latent inhibition. This is the process that prevents the development of anticipation anxiety because earlier positive experiences are linked to stimuli that otherwise could have become negative associations.
- Often the process in interpreted as seeing a child as often as possible without doing anything.

Anxiety conservation

- A different process occurs when an earlier experience is linked to a stimulus and kept alive artificially by repetition or parents mental training.
- Either the stimulus is forgotten and only the dental smell or an image of a dental tool or the feeling of being dependent remains.

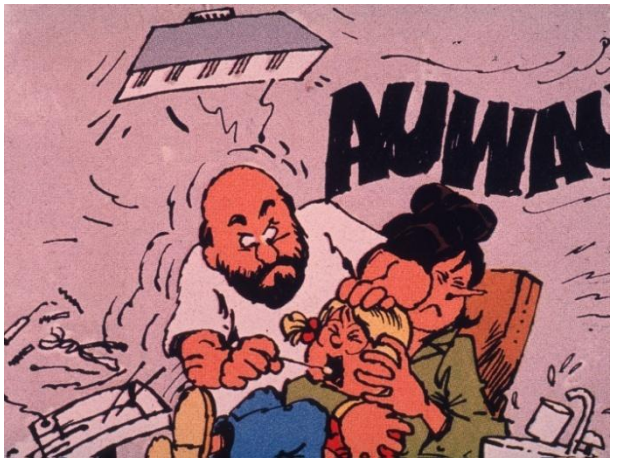
Video
the role of the dental assistant

The most important part of dental treatment is local anesthesia. After proper anesthesia most of the dental treatments are really a piece of cake. Look at the following dentist and see how he deals with the patient after LA, so when pain is not an issue anymore.

Classical Bias Issues

- **A BAD KID OR A SAD KID?**
- **ARE PARENTS DEMANDING OR WORRIED?**
- **ARE CHILDREN SPOILED OR UNPREPARED?**
- **DOES OPERATOR BIASS EXIST?**
- **BLAME THE PARENTS OR THE DENTIST?**

PARENT/CHILD/DENTIST INTERACTION



After treatment 35% of the parents look for another dentist for their child.

That indicates an unbalance on the position of paediatric dentists.

Weerheijm KL, Veerkamp JSJ, Groen H and Zwarts LM: Evaluation of the experiences of fearful children at a special dental care centre. ASDC J Dent Child 66(4), 253-56.

Parents of referred children are more sensitive on their child's health and feel more responsible for their child.

Berge M ten, Veerkamp J, Hoogstraten J. Prins P: Childhood dental fear in relation to parental child-rearing attitudes. Psych. Reports 2003, 92, 43-50.

The role of parents is said to be negative but is that really?

Parenting is undoubtly important but perhaps not as powerful as many might believe.

Long N: The changing nature of parenting in America, Pediatric dentistry 26 (2): 121-4, 2004

Dental anxiety correlated positively with the behaviour displayed during treatment. NO RELATION was found between parenting style and dental anxiety and behaviour during treatment.

Krikken JB, Veerkamp JSJ. Child rearing styles, dental anxiety and disruptive behaviour; an exploratory study. EAPD (9) feb. 2008

Parents present during treatment?

In a randomized trial we found no difference in treatment of anxious children.
Dentists have difficulties with anxious parents during treatment of their child.

I.C.J. Cox, J.B. Krikken, J.S.J. Veerkamp: Influence of parental presence on the child's perception of, and behaviour during dental treatment E APD 12 (Issue 4). 2011

Dentists' behaviour changes with the child's level of fear: more direct and controlling behaviours.

Weinstein 1982, Horst 1987, Greenbaum 1990, Alwin 1994, Ten Berge 1999, Veerkamp 2001.

HOWEVER….

A direct approach has a positive, long term effect on the child's dental anxiety.

Ten Berge MJM, Veerkamp JSJ, Hoogstraten J; J Dent Child Jan 1999.

Dental anxiety is mainly caused by the ***anticipation*** of painful events.

Younger children have difficulty in assessing the difference between pain and discomfort.

In young ones we offer support.

When older we learn them to cope.

Video
support during local anesthesia

The most important part of dental treatment is local anesthesia. Children can be trained to deal with the aversiveness of the procedure. Sometimes this can be done with relative ease.

- So what we do is adapting the content of a session to an age adequate target.
- So that means we inform, explain, and do what we told them in advance (former TSD).
- We take regression into consideration.

In Stress they Regress

What do Pediatric Dentists know about age appropriate behavior?

In our situation we know how children deal with strange people, medical situations, with aversive stimuli, how they talk being relaxed or tense, in which speed they talk….

Developmental problems?

Video . AGE APPROPRIATE BEHAVIOR

In this video you will see a child acting as she is trained to do, by reinforcing her avoidance strategies.

Developmental problems: spoiled?

A Bad girl or a sad girl?

This video showed us a child that learned to cope with her fear: in a fully age-appropriate way she avoids dentistry.

If one of the child behaviours in our setting does not comply with its biological age, we need to collect information.

Diagnosing developmental disabilities

Age appropriate behavior

At young age developmental disabilities are hard to recognize. With increasing capacities, the clearer disabilities can be assessed.

Problem behavior occurring before the 3th year that is not restricted to the dental situation mostly includes a mental disability.

What if he is silent and aggressive and kicks you when you approach him?

With 3 years it is fairly normal,
but when older?

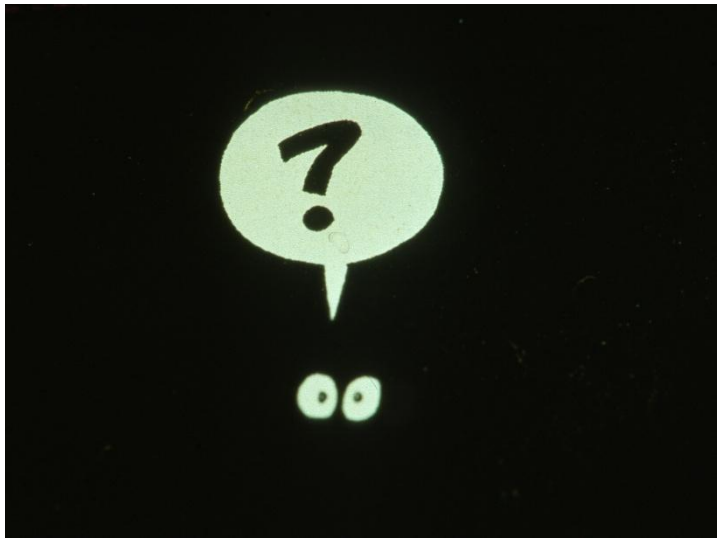
Always Ask: WHY !

Oh, well he did start a little

later at school. WHY?

Oh, he is doing fine now at school. WHY?

Oh, at first he needed to do so many things. WHY?



conditioning

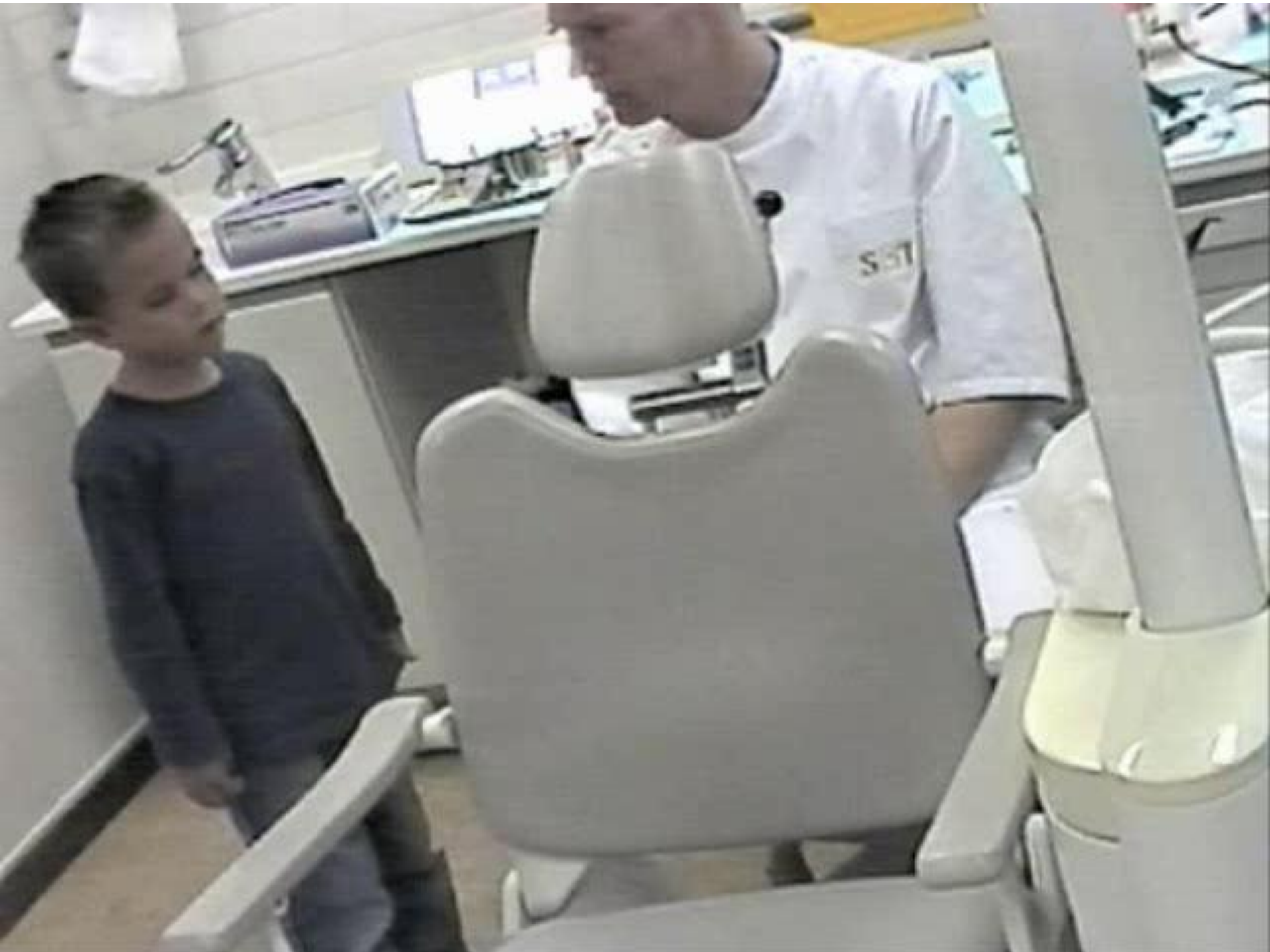
Video: avoidance and discomfort

In this video you will see a frightened pre-schooler showing anticipation anxiety and limited coping.

I don’t want a filling: reaction

- No time for democracy
- This is not difficult. There you go.
- Shall we do it together?
- Why not?
- Wanna talk about it?
- Eh, how was school today?
- But it doesn’t hurt!

➢Frontal
➢guidance
➢Support
➢Sensitive
➢Avoidance
➢Distraction
➢Reassuring

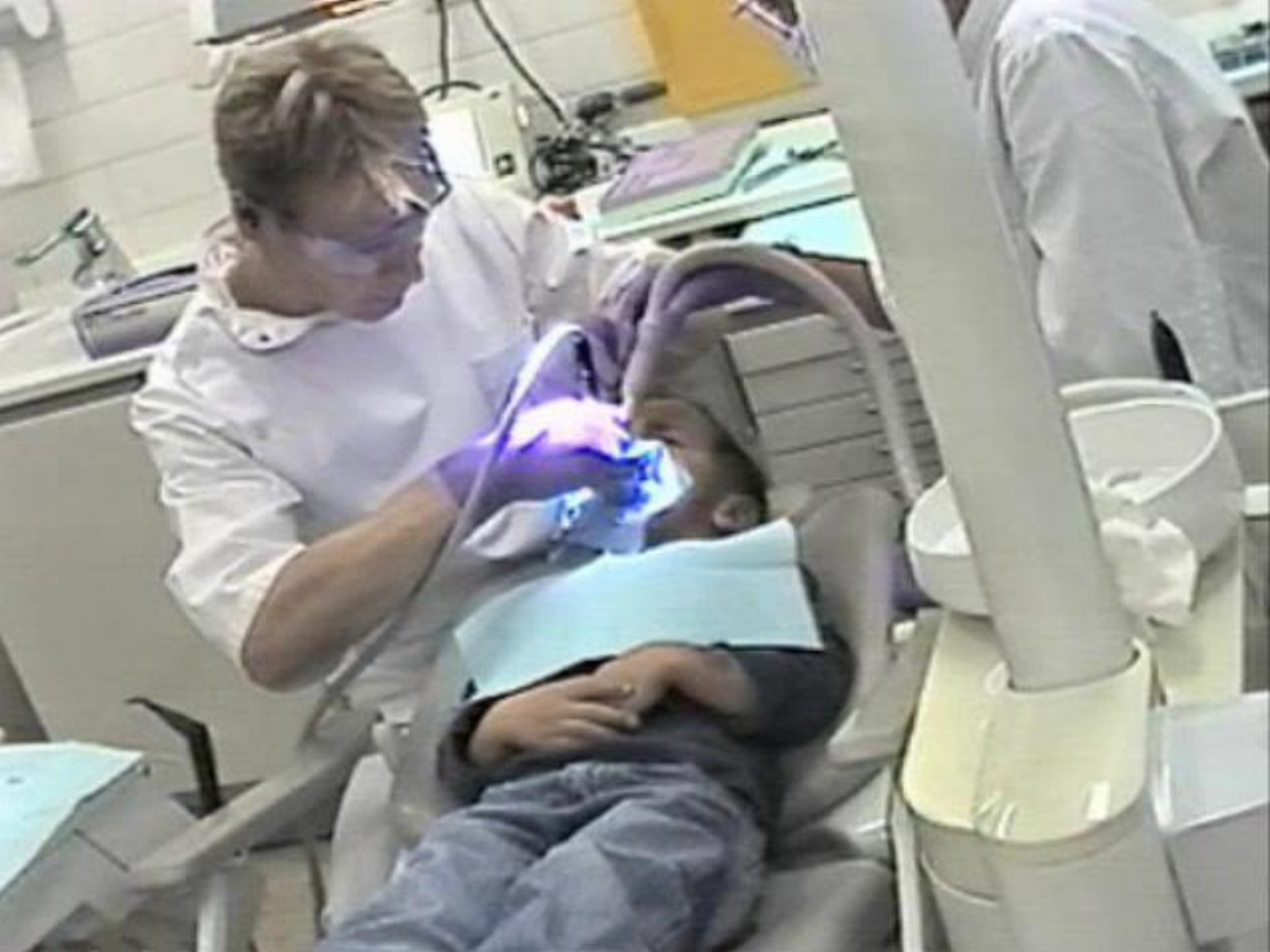


Reaction: voice and timing

- inventarisation
- I don’t like things as well
- Checking rapport
- Offering alternatives.
- How is your molar?
- Pacing and leading
- No time for democracy

- ➢reassuring
- ➢Support
- ➢sensitive
- ➢Avoidance
- ➢Distraction
- ➢Guidance
- ➢Frontal

A few minutes later it's all forgotten and little john lies relaxed in the dental chair….



Remember: kid involved!

Child observations are difficult. During treatment, the difference between pain and discomfort is hard to assess.

.. But children react the same on both.

Rick's key strategy was avoidance behaviour…

age

When the child had reached an age where it starts to reason on a cognitive level (8 yrs), we can explain the mechanism and try to change the conditioning with conscious strategies.

Before that age we have to adapt to the limited strategies and the coping strategies of the child.

That means tell-show-do (see video) and support during and after invasive procedures.

That does NOT mean we should reward every (avoidance) strategy.

Summary

- **Look at the biological age and capacities**
- **Explain your treatment to the parent**
- **Develop your own style**
- **Enjoy your work.**