

# Psychological consequences of health care experiences



## Background



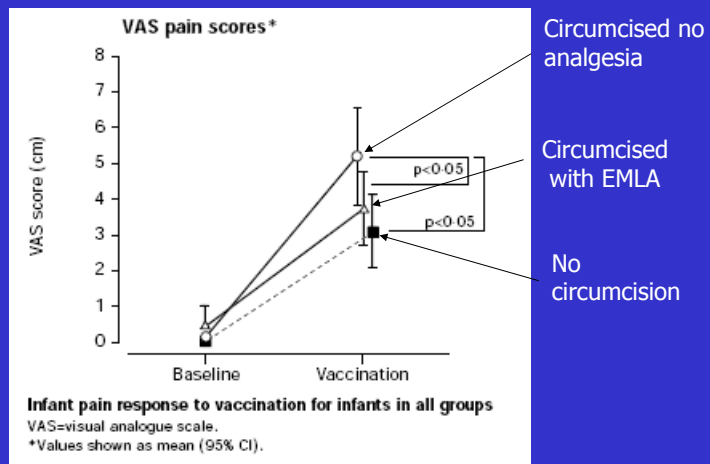
- 100 years ago almost all children who were institutionalized for some time died without any obvious medical reason
- Later the reason was found to lack of maternal care

# Two different kinds of consequences

- Enhanced pain sensibility
- Psychological changes

# Pain memory

Reaction to vaccination 4-6 month after neonatal circumcision

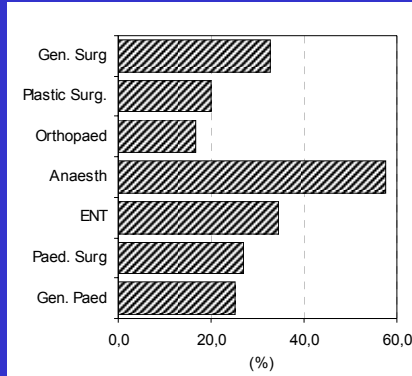


Taddio A, Lancet 1997

# Pain is a common experience for children in Swedish hospitals in spite of pain treatment



Frequency of non postoperative acute pain, moderate to severe, in Swedish hospitals



On average: 31%

Karling M et al, Acta Paediatr 2002

## Reasons to unsatisfactory pain treatment



	Nurse			Physician		
	Sometimes (%)	Frequent (%)	n	Sometimes (%)	Frequent (%)	n
Insufficient prescriptions	38	21	115	44	11	132
Children's anxiety	56	19	114	52	11	114
Parent's fear	49	13	112	45	11	112
Other reason to pain	29	13	24	30	3	11
Child does not tell	38	9	114	28	6	129
Poor communication between parent and nurse	51	6	113	52	2	127
Inadequate methods	24	5	114	28	6	133
Insufficient information to child/parent	48	5	110	45	5	129
Parent does not tell	26	4	113	26	1	129
Not enough time	12	2	113	7	2	130
Fear of side effects	17	2	112	19	4	131
Insufficient information to staff	34	2	111	28	2	126
Poor communication among the staff	33	1	111	33	1	129
Pain is natural; not always necessary to treat	5		111	5	5	128

Karling M, Acta Paediatr 2002

## Anxiety seems to enhance pain sensitivity

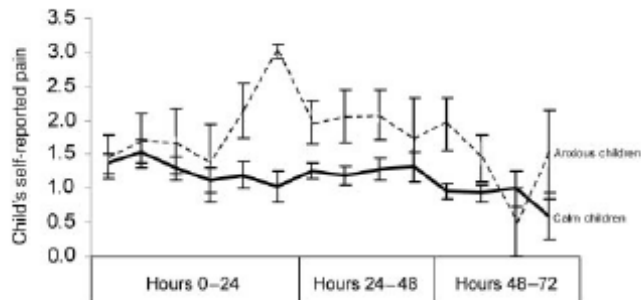


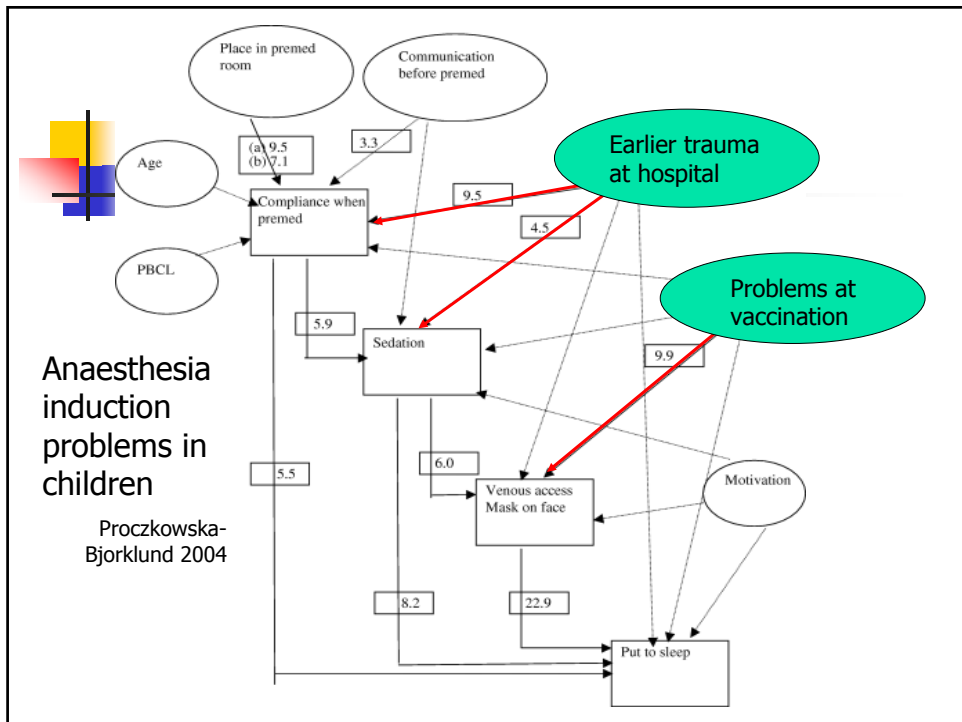
FIGURE 2  
Children's self-reported postoperative pain.

Kain, Z. N. et al. *Pediatrics*  
2006;118:651-658

## Previous bad health care experiences

- will make a child more anxious at subsequent medical procedures as anaesthesia induction

Proczkowska-Bjorklund M, Svedin CG. Child related background factors affecting compliance with induction of anaesthesia. *Paediatr Anaesth.* 2004 Mar;14(3):225-34.



## Psychological consequences

In the 1940ies it was observed that children who had past procedures in healthcare could develop different psychological symptoms:

- Disobedience
- Night terrors
- Fears
- Tantrums

Levy D, 1944



## 50-ies

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- Could anesthesia be the reason?



## 60-ies

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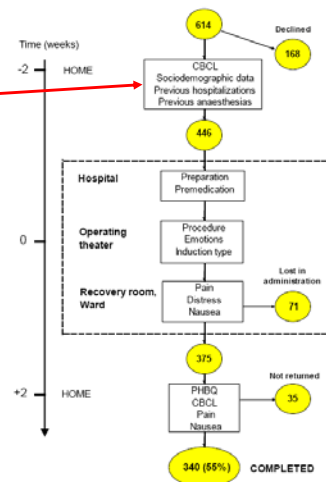
- Vernon et al. Put together the most common symptoms found in 6 different studies of hospitalized children
- From this they constructed an questionnaire: The Post Hospitalization Questionnaire

# Psychological impact of hospitalization

What are the causes?

## A Cohort study of children's post hospital behaviour

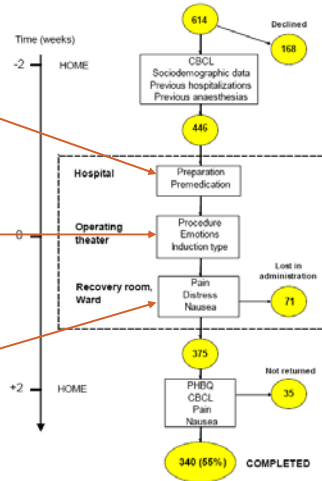
- Prior to hospitalization:
- Sociodemographic data
  - Previous health care expediences
  - CBCL





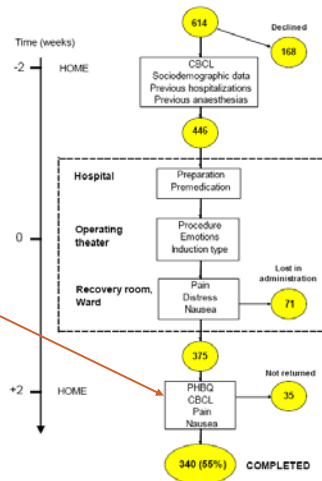
## Data collected at hospital

- Procedure
- Sedative premedication
- Preparation
- Child and parent anxiety
- Anaesthesia induction
- Pain, nausea and distress



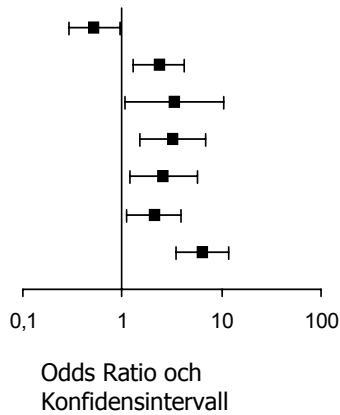
## Data collected two weeks after hospitalization

- Post Hospital Behaviour questionnaire
- Nausea
- Pain





# Child anxiety is a risk factor for later negative behaviour



## Total PHBQ score

Age more than 5 years

Domicile in urban area

Only one adult in family

Child anxious at anaesthesia start

Postoperative distress

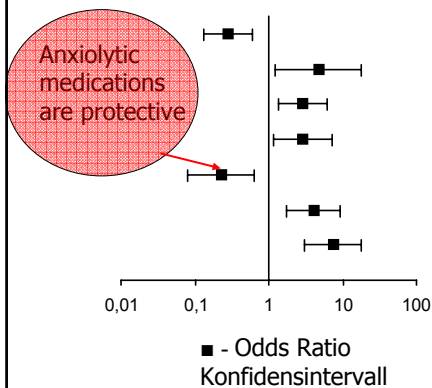
Postoperative nausea

Worst pain at home moderate to severe

Karling M: Child behaviour and pain after hospitalization, surgery and anaesthesia. Thesis 2006

Odds Ratio och Konfidensintervall

# Risk factors for development of aggressive/regressive behaviours



## Regression Aggression

Age more than 5 years

Only one adult in family

CBCL group high

Tonsillectomy vs. Other procedure

Midazolam in premedication

Postoperative nausea

Worst pain at home moderate to severe

Anxiolytic medications are protective

0,01 0,1 1 10 100

■ - Odds Ratio Konfidensintervall

# The key role of the nurse in pain treatment

- Many painful and distressing procedures are performed by nurses
- Nurses are primarily responsible for detecting and treating pain
- For pharmacological interventions the nurse needs prescriptions by physicians

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Tack!

