

Klinikum Bremen-Ost

Ein Unternehmen der
Gesundheit Nord gGmbH
Klinikverbund Bremen

Ein Team. Ein Ziel. Ihr Wohlbefinden.



ADHD

Myths and knowledge: hand in hand ?

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Clinic of Child and Adolescent Psychiatry

Bremen-Ost

ADHD – What does it mean?

Attention

Deficit

Hyperactivity

Disorder

ADHD – a new phenomenon?

First Description by Hoffmann
German Psychiatrist living in Frankfurt
in the 1840s

Prevalence studies show:

3-8 % of children are diagnosed with
ADHD

(GOLDMAN et al. 1998)

Approximately one- to two-thirds of
the children continue to manifest
significant symptoms in adulthood

(BARKLEY, 1998)

Observable symptoms, starting before the age of 7 years:

- Inattention and/or impulsivity
- Present in more than one setting
- Cause significant impairment

ADHD is differentiated or subdivided

- predominantly inattentive 55%
 - predominantly hyperactive-impulsive 25%
 - combined type 20%
- Kadesjö 2000

There are also overlaps of the described subtypes

Boys are more frequent affected than girls, ratio around 3:1

Neuropsychiatric assessment

- Speech – Language
- Psychiatric status
- Physical status
- Hearing
- Vision

Neuropsychological assessment

- Intelligence
- Difficulties in partial performances
- Concentration

Parent interview

with Scales or Questionnaires as:

- ADHD RS IV
- DAWBA
- Conners Scales
- FTF
- ASSQ

Thompson et al. 2004

Participants:

191 children and adolescents with ADHD

167 male (87.4 %)

24 female (12.6 %)

Ratio: 7 : 1

Mean-age: 10.5 y

Thompson et al. 2004

SDQ teachers scale:

Hyperactivity	73 %
Prosocial Behaviour	50 %
Peer Problems	43 %
Emotional Problems	15 %
Total Difficulties	66 %

Thompson et al. 2004

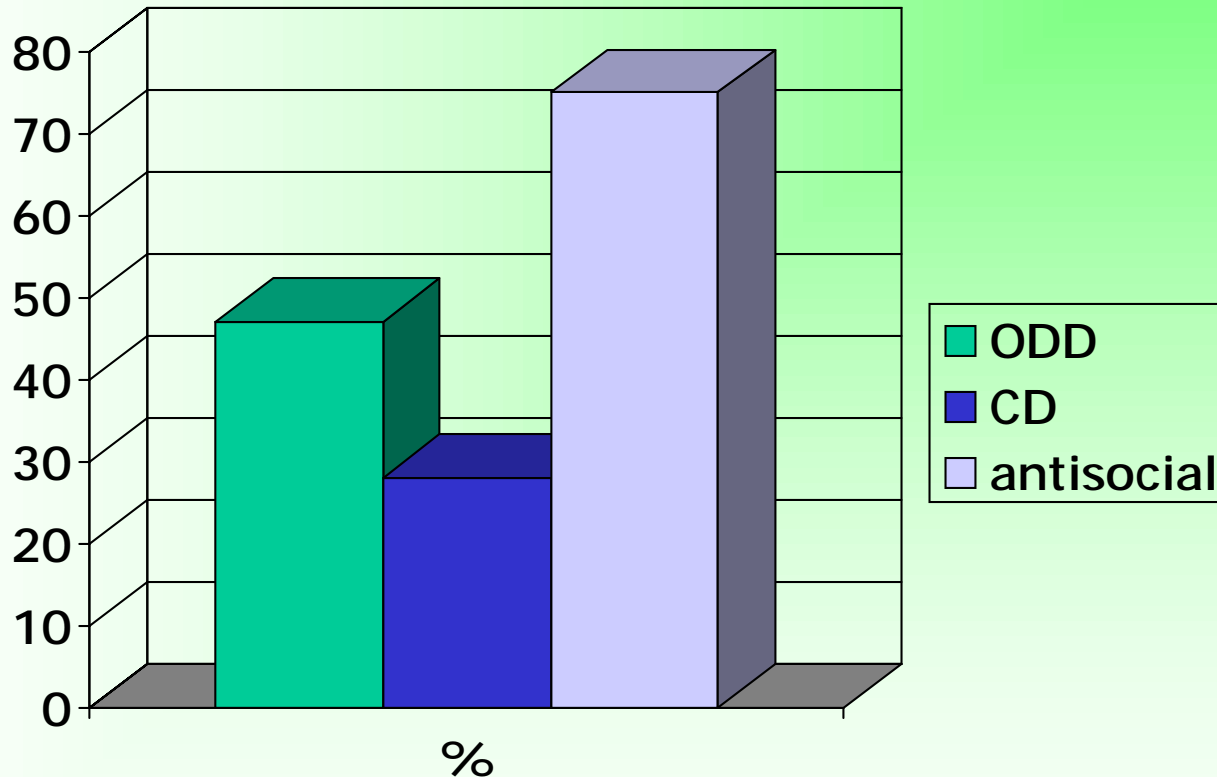
Rutter scale:

Hyperactivity	76 %
Neurotic	21 %
Anti-social	63 %

Thompson et al. 2004

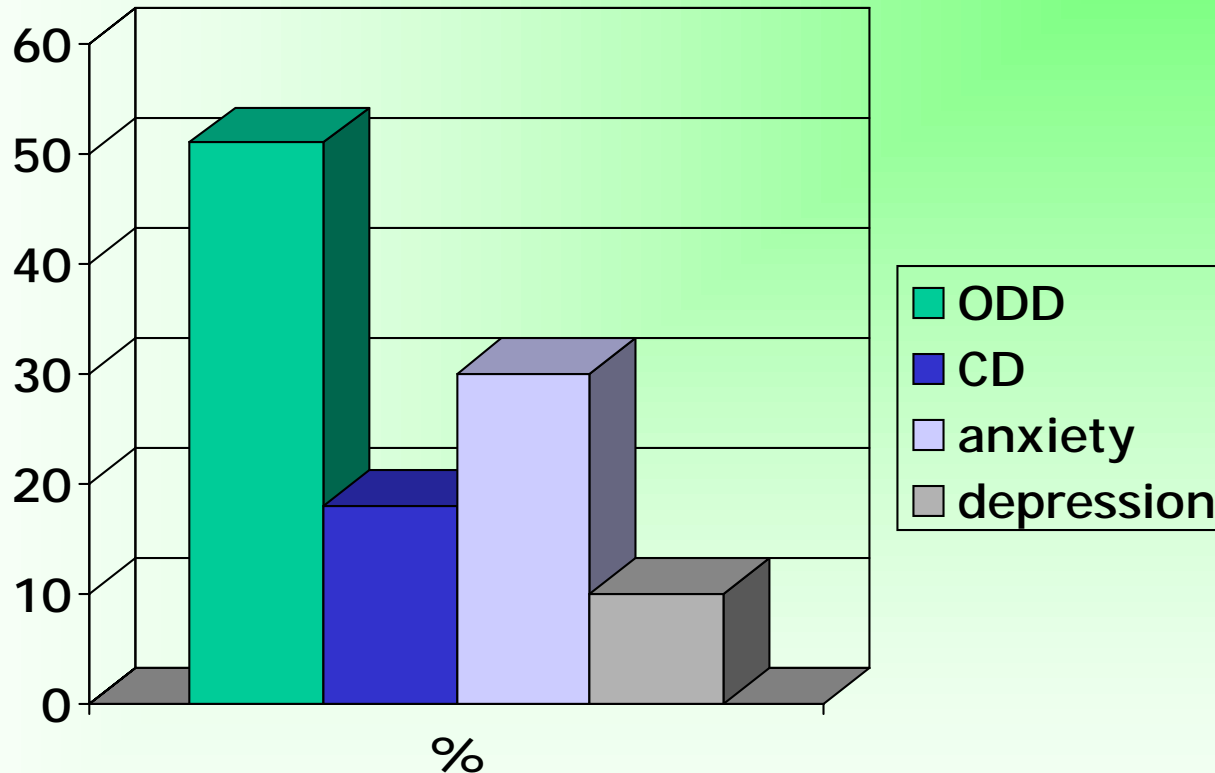
Low self-esteem	81 %
Aggression	52 %
Low empathy	47 %
Anxiety	19 %
Depression	22 %

Thompson et al. 2004



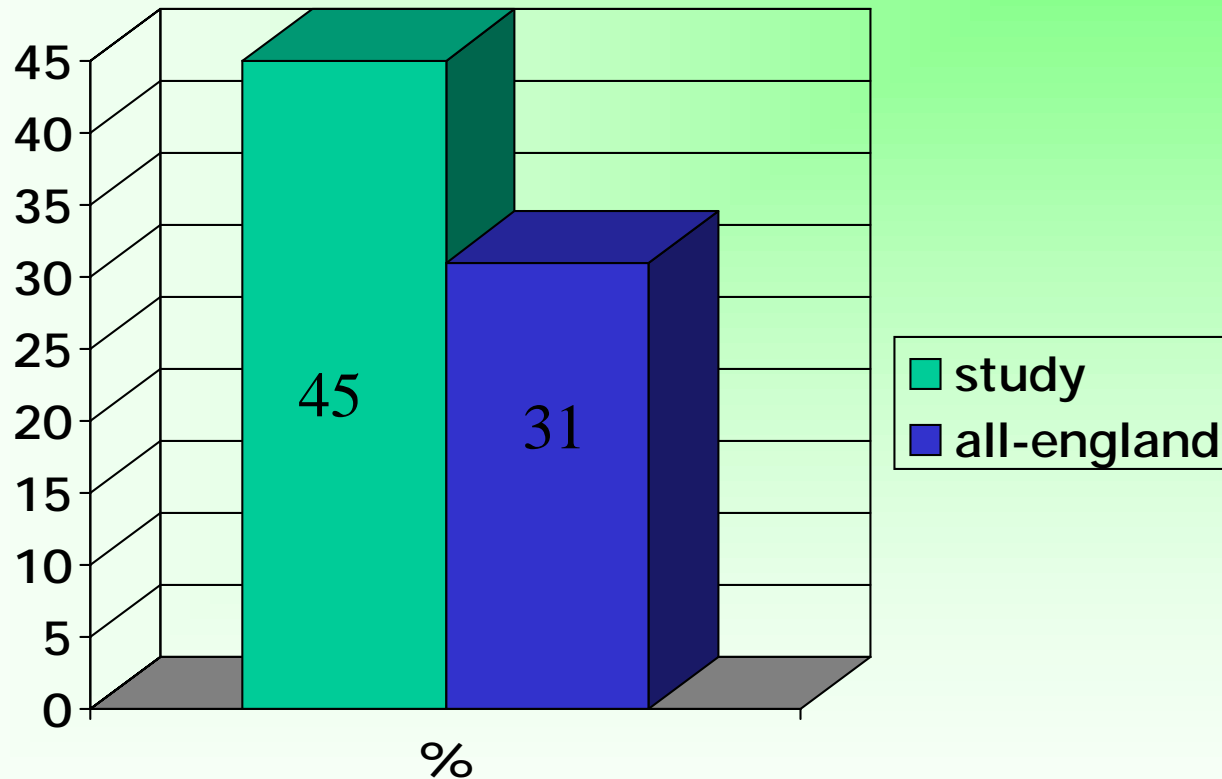
ODD = Oppositional Defiant Disorder, CD = conduct disorder

Rohde et al., ADHD comorbidities in Brazil, 2004



ODD = Oppositional Defiant Disorder, CD = conduct disorder

Thompson et al. 2004



Thompson et al. 2004

Continuous bullying at school	24 %
Postnatal mental health problems in mother	17 %
Disorganised family (no rules, short of money)	17 %
On-going mental health problems in father	16 %
Suspected AD/HD in sibling	15 %
Suspected AD/HD in father	14 %
Homeless/eviction	12 %
Inadequate parental supervision	11 %

Lehmkuhl et al. 2004

Pre- or perinatal adversity (MCD)

Genetic causes

Allergic causes

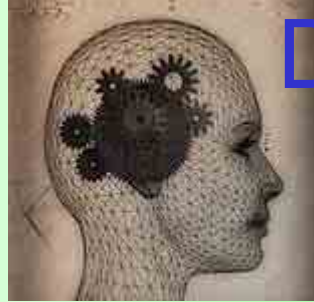
Psychosocial causes

Christakis DA, Zimmerman FJ, DiGiuseppe DL, McCarty CA. Early television exposure and subsequent attentional problems in children. *Pediatrics*. 2004;113:708-713.

Watching too much television may promote inattention

Researchers have found that television exposure in children ages 1 to 3 is associated with attention problems at age 7.

each hour of television watched per day increases these children's risk of attention problems, such as attention- deficit/hyperactivity disorder (ADHD), by almost 10% at age 7.



Jensen et al. 2002

There seems to be a disturbance of the
Dopamine system

There are more Dopamine Transporters
in ADHD

MPH has the effect of a reuptake
inhibitor at Dopamine Transporters

Stimulant medications

2 general categories:

Methylphenidate (MPH)

Amphetamine

Stimulant medications - MPH

- MPH is most extensively studied
- Well absorbed after oral ingestion
- Reaches peak plasma levels after 2 h
- Clinical effect within 20-30 min
- Maximum daily dose: 60 mg

Stimulant medications - MPH

- very short acting substance
- three times daily dosing often required
- Longer acting MPH is created
- combinations of immediate- and extended-release MPH

Stimulant medications - MPH

- effects lasting 10-12 h
- much better compliance

Stimulant medications - Amphetamines

- longer duration of effect
- approved by the FDA for use in children 3-5 y

Stimulant medications – Side effects

- decreased sleep
- decreased appetite
- motor tics
- restlessness

MTA Study (Multimodal Treatment of ADHD)

Jensen et al.

Long-term effects of ADHD treatments

Comparison of medication and
behavioral treatments

Additive Effects of Combined
Treatment

MTA Study (Multimodal Treatment of ADHD)

Jensen et al.

4 randomly assigned groups:

Med management only (MedMgt)

Behavioral treatment only (Beh)

Behavioral + Med (Comb)

Community Comparison (CC)

MTA Study (Multimodal Treatment of ADHD)

Jensen et al.

Superiority of medication over BT for
ADHD symptoms

Modest advantages of combination

MTA medication was superior to usual
medication

(quality of care parameters, dose, teacher contact
etc.)

MTA Study (Multimodal Treatment of ADHD)

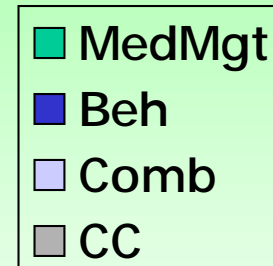
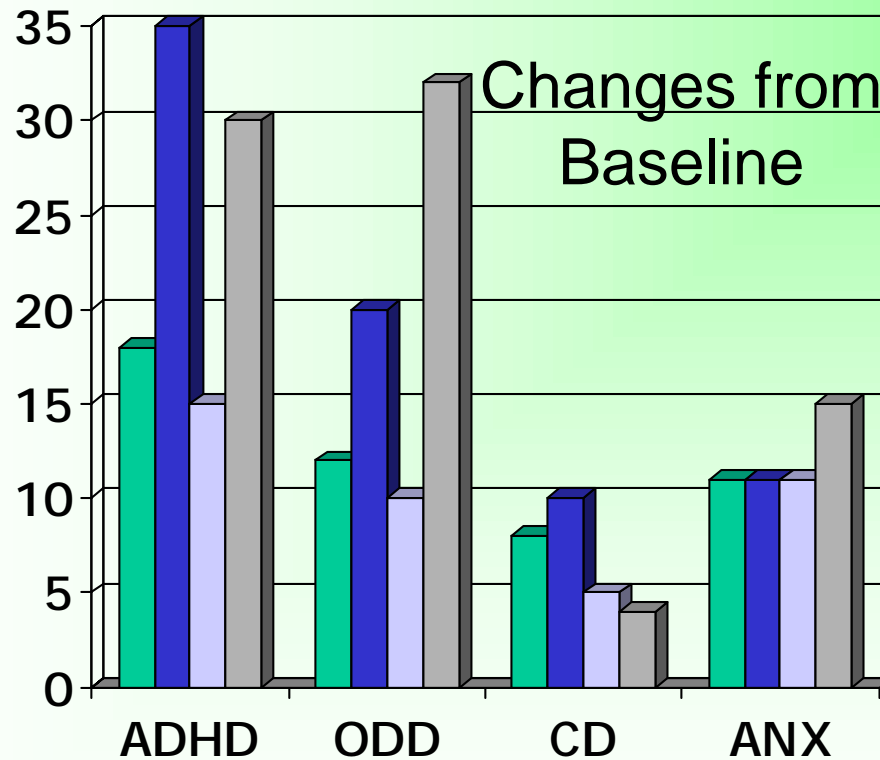
Jensen et al.

Comorbid subgroups responded selectively to specific treatments

Relevance of findings for European practice is discussed

MTA Study (Multimodal Treatment of ADHD)

Jensen et al.



ODD = Oppositional Defiant Disorder,
CD = conduct disorder
ANX = Anxiety

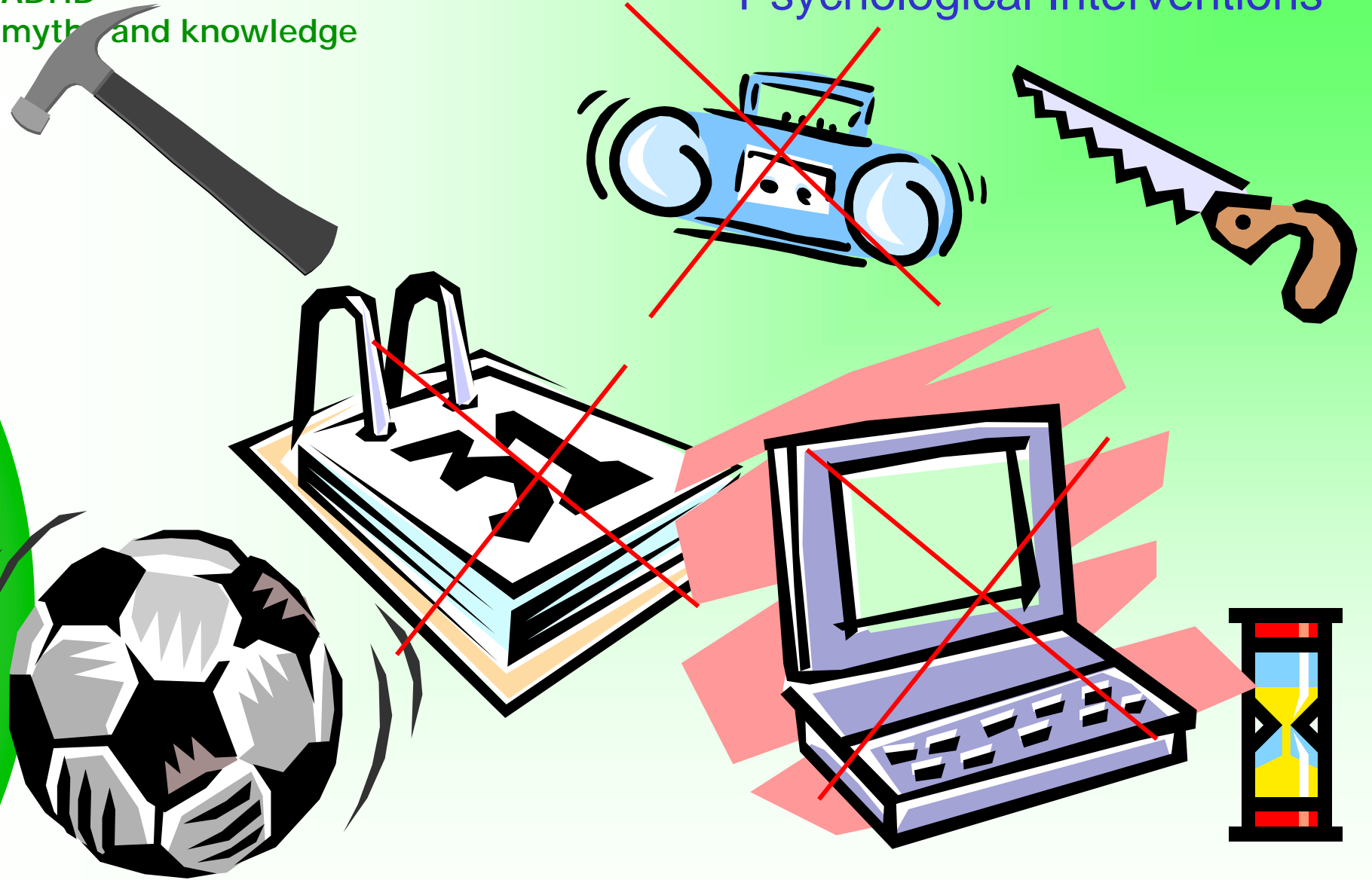


„Fidget“ is not
uneducated, but he
needs help!

No one is guilty!

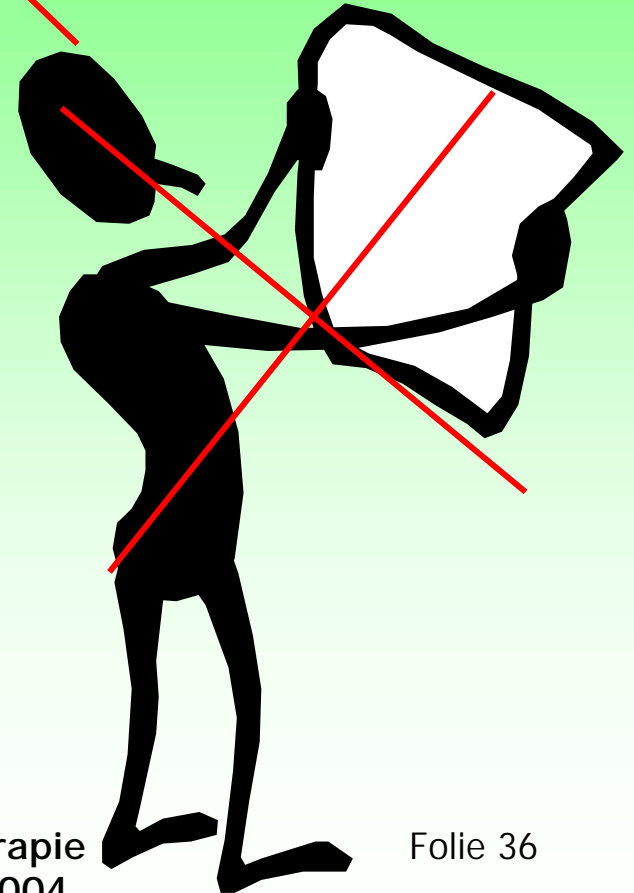
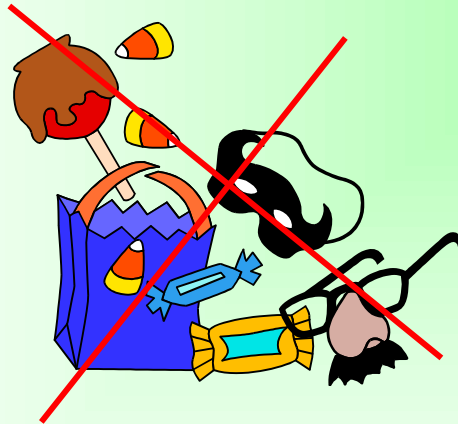
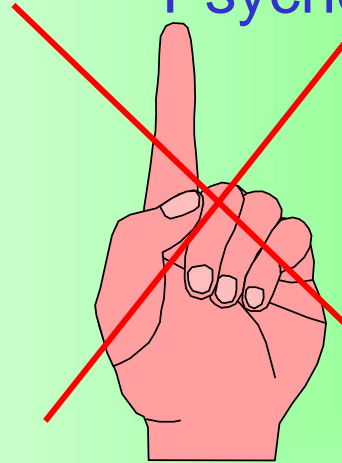
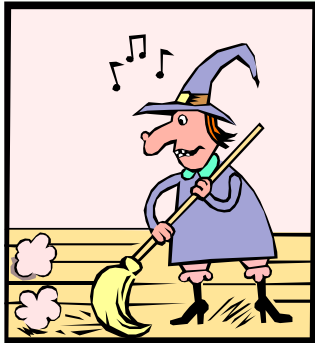
ADHD
myths and knowledge

Psychological Interventions



ADHD myths and knowledge

Psychological Interventions



Specifically targeted towards the concrete setting

Parallel interventions in schools, daycare and home (child doesn't necessarily generalize experience across settings)

Multidimensional interventions to target the behavioural, academic and psychosocial aspects of ADHD

Interventions should take place over a longer period of time

Environmental interventions: Focus on strengthening cooperation between parents and teachers, creating positive routines and decreasing conflicts and confusion

Child-focused treatment: Consists of a combination of cognitive and behavioural interventions

Group-treatment: Training of social skills and self-control

Aims:

To relieve specific difficulties

To enhance the child`s and family`s possibility for development

To enhance „the goodness of fit“ between the child and caregivers

Thanks for your attention...
...without methylphenidate!

Prof.Dr.med. Dietrich Petersen

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