

Universal versus indicated prevention: Triple P and the Prevention Program for Externalizing Problem Behaviour (PEP)

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Indicated prevention – advantages and disadvantages

Indicated Prevention

= target individuals who are identified as having prodromal signs or symptoms related to mental disorders, but who do not yet meet diagnostic criteria (NIMH, 1998).

Advantages

...compared to universal prevention

- Only those receive prevention who really need it.
- Concentration of resources on children at risk.

...compared to treatment

- early intervention may be more effective

Problems

- How to identify the target population?
- Is indicated prevention accepted by the target population?
- Problems of stigmatization?

Efficacy of Indicated Prevention / Treatment with Externalizing Pre-school Children

- **Conduct Problems Prevention Research Group (1999)** (FAST-TRACK): school enrolment, small to moderate effects on parenting and aggressive behaviour of the child.
- **Sonuga-Barke (2001)**: marked effects in three year old children with ADHD on externalizing behaviour (home based parent training).
- **Webster-Stratton (1998, 2001)**: marked effects in four year old children with externalizing behaviour problems (parent training and pre-school intervention), 1 year stability
- **Barkley et al. (2000), Shelton et al., (2000)**: Small / no effects in pre-school children with externalizing behaviour problems (parent training and pre-school intervention), high attrition rate for parent training
- **Sanders et al. (2000, 2001)**: marked effects in four year old children with externalizing behaviour problems, 1 year stability

Nelson et al. (2003): Meta-Analysis of Longitudinal Research on Preschool Prevention Programs

- Preschool prevention programs have effects on children's cognitive and social–emotional functioning and parent–family wellness that endure through the time that children are in grades K to 8 (i.e., up to nearly 9 years of age).
- The size of these effects (roughly $d = 0.3$) are in the small to moderate range.
- average weighted effect sizes for programs that were
 - longer ($d = 0.37$)
 - and more intense ($d = 0.44$)
 - are substantially higher than the effect sizes for programs that were shorter ($d = 0.11$) and less intense ($d = 0.18$).

Prevention Program for Externalizing Problem Behaviour (PEP)

- group parent training
- group teacher training
- 10 weekly 90 minutes sessions (~ 6 – 8 participants)
- based on Treatment Program for Oppositional and Hyperkinetic Problem Behaviour (THOP)
- basic principles
 - ▶ Identification of individual target problems and development of individual interventions in the family and the pre-school
 - ▶ strengthening positive parent / teacher – child interactions
 - ▶ effective methods of communicating commands and positive reinforcement
 - ▶ appropriate negative consequences to problem behaviour



Study 1: Efficacy of universal and indicated prevention of behaviour problems in pre-school children

- funded by the German Research Foundation (DFG)
- 2 sites and 2 prevention programs
 - TU Braunschweig *Projekt Zukunft Familie* (K. Hahlweg)
 - University of Cologne (M. Döpfner)
- Aims:
 - Assessment and comparison of the efficacy of
 1. Positive Parenting Program (**Triple P-4 group sessions**)
 2. Prevention Program for Externalizing Problem Behaviour (**PEP**)

Comparison of PEP and Triple P

Group trainings based on the same principles (modification of the interaction) and similar content

PEP

- indicated prevention
- tailored to specified individual externalizing problems
- parallel parent/teacher training
- 10 sessions each

Triple P (level 4)

- universal prevention
- not tailored
- parent training
- 4 sessions

PEP-Parents & PEP-Teachers

1. Identification of competencies and target problems of the child
2. The coercive interaction process (devils circle) & Strengthening of positive parent (teacher)-child interactions (play time)
3. Strategies for restoring energy (e.g. relaxing, leisure time)
4. Defining rules, giving commands effectively
5. Positive reinforcement
6. Negative consequences
7. Parents: Problem behaviour in public places
Teachers: Counselling parents
8. Parents: Conflicts with brothers, sisters and other kids
Teachers: Social competence training
9. Strengthening intensive play (play training)
10. Summary

Recruitment and Design: Study Site Cologne

PEP

Screening (3-6 ys)
(n=2845 =90%; 85th percentile: n= 243)

Pre-Test (n=155)

Randomization
2:1

PEP: n=91
2 x10 sessions
(parents / teachers)

n=64
No treatment

Post-Test

Triple P

Informations and
voluntary participation (< 20%)

Pre-Test (n=93)

Randomization

Triple-P: n=48
4 sessions
(parents)

n=45
No treatment

Post-Test



Sample Characteristics

Variable	PEP-INT (n=91)	PEP-CON (N=64)	PPP-INT (N=48)	PPP- CON (N=45)
Age: mean (SD)	4.19 (0.87)	4.16 (0.92)	4.17 (0.93)	4.29 (0.86)
Sex: % boys	74.7%	70.3%	64.6%	48.9%
Family monthly net income: mean (SD)	6.78 (2.88)	6.87 (2.65)	7.95 (2.85)	8.19 (2.86)
Education mother: mean (SD)	2.00 (1.03)	1.71 (1.41)	2.15 (.850)	2.38 (.886)
Education father: mean (SD)	1.83 (1.08)	1.63 (.993)	2.38 (1.03)	2.12 (.942)

PEP: more boys, lower family income, less educated parents

Outcome parameters (composite scores)

Child Symptoms (mother report)

- Symptom Checklist ADHD and ODD (SCL-ADHD, SCL- ODD)
- Child Behavior Checklist 1 ½ -5 (CBCL/1 ½-5)
- Home Situation Questionnaire (HSQ)
- Perceived Parental Strains (EEB)

Parenting (mother report)

- Parent Practices Scale (EFB)
- Parenting Scale (FZEV)
- Self-Efficacy Scale (FSW)
- Problem Setting and Behaviour Checklist (VER)

Parents' Quality of Life (mother report):

- Social Support Scale (FSOZ)
- Depression Anxiety Stress Scale (DASS)
- Parenting Problem Checklist (EKS)
- Life Satisfaction Scale (FLZ)

Results of ITT-Analysis

- compared to control groups both interventions revealed significant changes in
 - child symptoms (parent ratings)
 - parentingwith effect sizes in the small to medium range
- Effects of Triple P on child symptoms (parent ratings) in a less severely disturbed group were larger than the effects of PEP in a more severely disturbed group.
- No effects of Triple P in pre-school teacher rated child behavior problems (no generalization to another setting)
- Effects of PEP in pre-school teacher rated child behavior problems

Differences in treatment adherence

Treatment refusal rates:

- PEP: 33%
- Triple p: 6%

-> presumably caused by different recruitment strategies
(systematic screening vs. voluntary self nomination)

- **Per protocol analysis**

inclusion of patients with

- at least 25% treatment adherence in Triple (1 of 4 sessions)
- at least 30% treatment adherence in PEP (3 of 10)
- complete pre- and post assessment

PEP: N = 100 (54 EG, 46 KG)

Triple P: N = 80 (40 EG, 40 KG)

Summary: Study 1

- Both preventive approaches are effective in the population they are designed for (parent ratings)
- Treatment adherence in the PEP –parent group is lower
- ITT analysis show higher effects in Triple P
- Similar effects were found in families that actually received the interventions
- No generalization of effects in Triple P to other settings (pre-school) but effects of PEP with an additional teacher training

Next steps:

- Follow-up
- Direct comparisons of indicated sample with more severely disturbed children in universal sample
- PEP: effectiveness under routine care conditions

Study 3: Long-term effectiveness of PEP parent training in routine care

- PEP –parent training was offered in several counseling and support organizations
- Referred sample; institutions were responsible for family recruitment
- Children had to exhibit externalizing problem behavior and were 3 to 10 years old

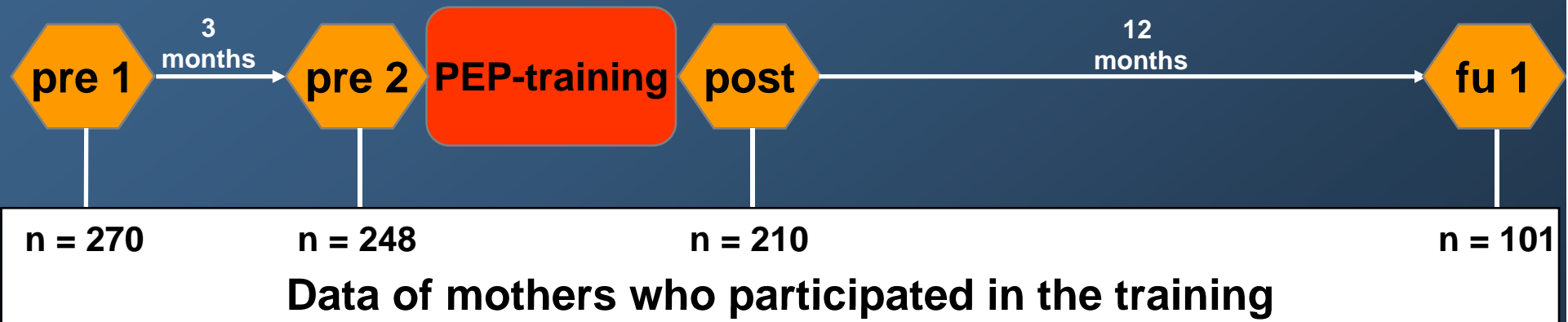
- PEP trainers were employees of participating institutions
- Training on PEP in a 2-day course by project members
- 58 PEP trainers were introduced
- 36 sites were included

Hautmann et al.(2008). Effectiveness of the prevention program for externalizing problem behaviour (PEP) in children with symptoms of attention-deficit/hyperactivity disorder and oppositional defiant disorder - generalization to the real world. Journal of Neural Transmission, electronic pre-publication DOI 10.1007/s00702-007-0866-6



Effectiveness of PEP-parents: Design

- Within-subject-control-group design



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Conclusions

- Both universal and indicated prevention are effective in the population they are designed for. The combination of both approaches is useful.
- Similar effects (parent ratings) were found in families that actually received the interventions.
- In order to reduce behavior problems at pre-school, interventions in that setting may be necessary
- Further analyses have to take into account the differences between both samples (symptom severity, gender, parental education)
- In this sample the effects of Triple p diminish at follow up (lack of booster sessions?)
- PEP is also effective in referred samples under routine care conditions; effects are maintained.