



The Norwegian Center for
Child Behavioral Development

A nationwide effort to prevent conduct problems in children and adolescents in Norway:

Do age and gender affect effectiveness?

John Kjøbli, researcher
john.kjobli@atferdssenteret.no



Topics

- Conduct problems: Efforts in Norway
- The intervention research
- Child age and gender as predictors and moderators of outcomes
- Results
- Discussion

Conduct problems: Efforts in Norway

- Governmental initiative in 1997:
A policy decision was made to
scale up the use of evidence-
based intervention
- The Norwegian Center for Child
Behavioral Development was
established
- Led to a nationwide
implementation of evidence-
based interventions

Population: 4.7
million
19 counties
431 municipalities
5 health regions





The evidence-based interventions

- Children:
 - Parent Management Training, the Oregon model (PMTO)
 - Early Initiatives for Children at Risk (TIBIR)
 - To increase reach, to identify conduct problems early and offer tailored interventions





The evidence-based interventions

- Adolescents:
 - Multisystemic Therapy (MST)
 - Functional Family Therapy (FFT)
 - Multidimensional Treatment Foster Care (MTFC)





The Norwegian Center for
Child Behavioral Development

Publications

Behaviour Research and Therapy 51 (2013) 113–121



Contents lists available at SciVerse ScienceDirect

Behaviour Research and Therapy

journal homepage: www.elsevier.com/locate/brat

A randomized trial of group parent training: Reducing child conduct problems in real-world settings

John Kjøbli*, Silje Hukkelberg, Terje Ogden

The Norwegian Center for Child Behavioral Development, University of Oslo, P.O. Box 7053, Majorstuen, 0306 Oslo, Norway

Prev Sci

DOI 10.1007/s11121-012-0289-y

A Randomized Effectiveness Trial of Brief Parent Training in Primary Care Settings

John Kjøbli • Terje Ogden

Kjøbli, J. & Sorlie, M.-A. (2008). School outcomes of a community-wide intervention aimed at preventing problem behavior. *Scandinavian Journal of Psychology*, 49, 365–375.

Journal of Consulting and Clinical Psychology
2008, Vol. 76, No. 4, 607–621

Multisystemic Treatment of Serious Behaviour Problems in Youth: Sustainability of Effectiveness Two Years after Intake

Terje Ogden & Kristine Amund Hagen

The Norwegian Center for Child Behavioral Development, University of Oslo, P.O. Box 7053, Majorstuen, 0306 Oslo, Norway

Adherence to brief parent training as a mediator of effectiveness in real-world settings

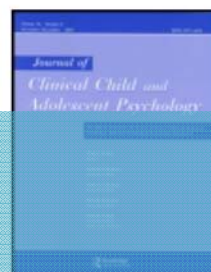
Research Article

A Randomized Effectiveness Trial of Brief Parent Training: Six-Month Follow-Up

John Kjøbli

John Kjøbli¹ and Gunnar Bjørnebekk¹

Research on Social
00(0) 1–10
© The Author(s) 2
Reprints and permi
sagepub.com/journ
DOI: 10.1177/1049
rs.w.sagepub.com



Journal of Clinical Child & Adolescent Psychology

Publication details, including instructions for authors and subscription information: <http://www.tandfonline.com/loi/hcap20>

Treatment Outcomes and Mediators of Parent Management Training: A One-Year Follow-Up

Implementing and Evaluating Evidence-Based Treatments of Conduct Problems in Children and Youth in Norway

The Evolution of Evidence-based Practices

Anthony Biglan

Center on Early Adolescence, Oregon Research Institute

Terje Ogden

Norwegian Center of Child Behavioral Development, University of Oslo

Evidence
Effectiveness

Mediators and moderators



The research in Norway

- Eight randomized effectiveness trials
- Children:
 - PMTO
 - PMTO Group Format
 - PMTO for ethnic minority mothers (group format)
 - Brief Parent Training (BPT)
 - Child social skills training
 - Teacher consultation (ongoing)
- Adolescents:
 - MST
 - FFT (ongoing)



= 843 families



Intervention	Type of study	Positive outcomes
PMTO	RCT	Yes

PMTO group format	RCT	Yes
PMTO for ethnic minorities (group format)	RCT	Yes
Brief Parent Training (BPT)	RCT	Yes
Child social skills training	RCT	No
MST	RCT	Yes



The research in Norway

- The PMTO and MST principles can be successfully transported:
 - From the US to Norway
 - Real world settings
- Thus, effectiveness has been established
- What's next?
- Examine mediators and moderators



Rationale

- Learn more about for whom and under what conditions are the interventions effective
- Gender and age as moderators because:
 - Findings have been mixed with regard to gender (e.g., Hipwell & Loeber, 2006)
 - Some have suggested that boys should benefit more since interventions have been developed for them (e.g., Pepler et al., 2004)
 - Some studies have found younger children to gain more than older children (McCart et al., 2005), while others have not (Beauchaine, Webster-Stratton & Reid, 2005; Lundahl et al. 2006)
- The clinical implications may be important – do we need age- and gender-specific interventions?



Child interventions (3-12 years)

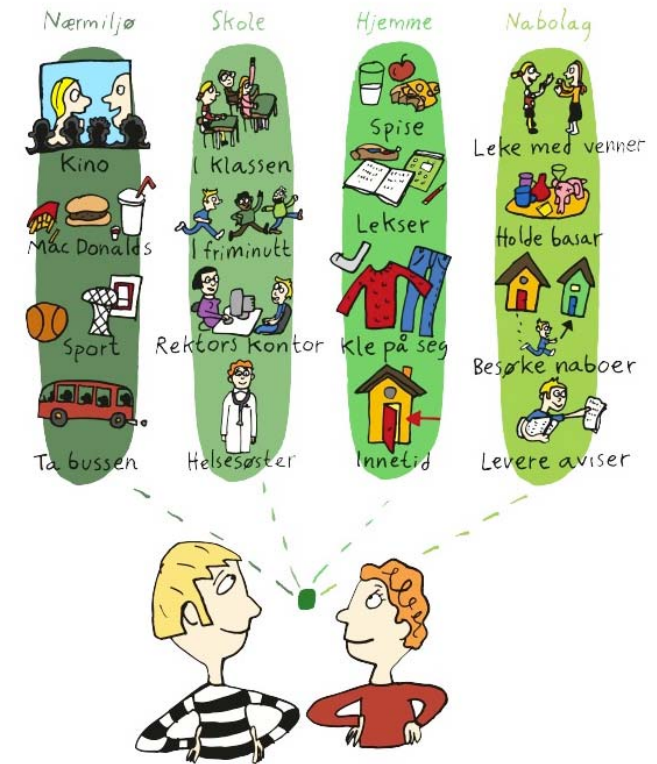


- PMTO individual treatment
 - 20-30 sessions (Ogden & Hagen, 2008; Hagen, Ogden, & Bjørnebekk, 2011)
- Brief Parent Training (BPT)
 - Short-term (4-6 sessions) adaptation of PMTO (Kjøbli & Ogden, 2012; Kjøbli & Bjørnebekk, 2013)
- Parents are taught how to use :
 - Positive teaching strategies (e.g., encouragement)
 - Mild and appropriate forms of negative consequences (e.g., time out)
 - Positive involvement and monitoring skills



Adolescent intervention (12-18 years)

- Multisystemic therapy (MST) (Ogden & Hagen, 2006; Ogden & Halliday-Boykins, 2004)
- Aims:
 - Strengthen family cohesion
 - Increase positive parenting practices
 - Positive friends and activities
 - Schools and neighborhoods
- Family- and community-based program
- 24/7 therapist availability
- Usually lasting for 3 to 5 months





Research questions

- In all 3 samples:
 - Are intervention outcomes influenced by child gender and age?
- Additionally, in the BPT study (RCT-design):
 - Are intervention effects moderated by child gender and age?



The Norwegian Center for
Child Behavioral Development

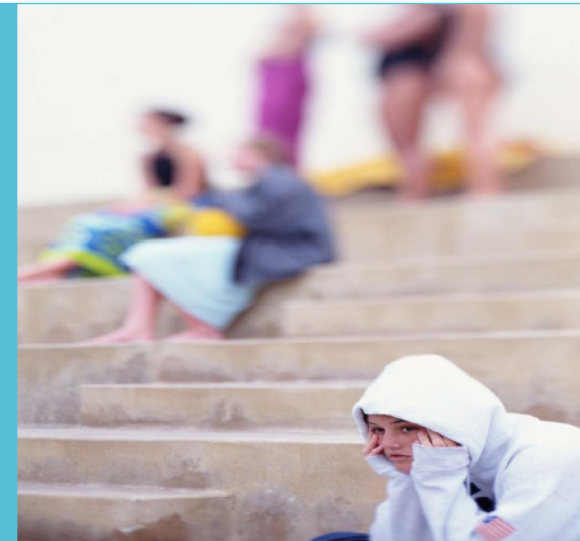
Participants and design

The MST sample

- 117 families who received MST
- Child age: 12-17 years ($M = 14.58$)
- 35 % girls
- Pre-post design



atferdssenteret



**INTRODUKSJON TIL
MULTISYSTEMISK
TERAPI (MST)**

Participants and design

The PMTO sample

- 323 families who received PMTO
- Child age: 4-12 years ($M = 8.68$)
- 27 % girls
- Pre-post design



PMTO-HÅNDBOK



The Norwegian Center for
Child Behavioral Development

Participants and design

- The BPT sample
 - 216 families
 - Child age: 3-12 years ($M = 7$)
 - 32 % girls
- Randomized to BPT or regular services
- Pre-post design



atferdssenteret



FORELDRE RÅDGIVNING

TIDLIG INNSATS FOR BARN I RISIKO (TIBIR)



Results: Gender

- PMTO before treatment:
 - Boys scored higher on parent (CBCL) and teacher (TRF) reports of conduct problems
 - Girls higher on internalizing problems (CBCL)
- PMTO after treatment:
 - Girls more likely to improve from pre to post on 2 of 7 outcomes:
 - TRF externalizing
 - SSRS teacher

Kjøbli & Ogden, 2009



Results: Gender

- MST before treatment:
 - Boys more criminal offences and domestic violence
 - Girls more drug abuse and covert antisocial behavior (e.g., running away from home)
- MST after treatment:
 - 3 of 13 analyses - significant gender differences :
 - Parent reported externalizing (CBCL) – girls improved more than boys
 - Self-report delinquency (SRD) – girls improved more than boys
 - Self-report internalizing (YSR) – boys improved more than girls

Ogden & Hagen, 2009



Results: Gender

- Brief Parent Training before intervention:
 - Boys scored higher on parent (Eyberg) and teacher (Merrell) reports of conduct problems
 - Girls higher on social competence (Merrell)
- RCT findings after intervention:
 - Gender did neither predict nor moderate any outcomes

Gender:
Different profiles –
similar outcomes



Results: Age

- MST: Age did not predict self reported (YSR) or parent reported (CBCL) externalizing behavior (Otnes & Prydz, 2009)
- PMTO: More positive change for older children on parent reported (CBCL) externalizing behavior, but not on teacher reports (TRF)

- BPT: RCT findings showed no main effects of age
- Interaction effect (Eyberg): Older children better outcomes in BPT than in the comparison group
- But **Age:**
More similarities than
difference



Limitations

- Sample size and relatively few girls
 - Type 2 error: May have missed some relationships because of low power
- Confounding variables
 - The relationships may be spurious
- Lack of a comparison group in PMTO and MST samples
 - Could age and gender moderate outcomes?



Discussion

- Flexible and robust enough to be effective regardless of gender and age
- Our findings suggest that we do not need age- and gender-specific interventions
- However, effect sizes from our RCTs indicate that the interventions can be improved

Discussion

- How can we improve interventions?
 - Examine other potential moderators. For instance:
 - Child comorbidity
 - Parent mental distress/depression - BPT
 - Socio-demographic factors
 - Experimentally test how to improve outcomes for subgroups
 - Maybe some need additional procedures or modules?



Summing up

- Evidence-based interventions are effective
 - In our studies:
 - Mainly regardless of gender and age
- However; the interventions can be improved
- As we increase our knowledge
- Our efforts need to be updated accordingly





The Norwegian Center for
Child Behavioral Development

Thank you for your attention!

