



THE NORWEGIAN CENTER FOR  
CHILD BEHAVIORAL DEVELOPMENT

# **Presentation of NUBU NUBU/PALS and VIP seminar**

**Anett Apeland, Clinical Director  
Department for Children/NUBU  
10. December 2021**



# Governmental initiative: Conduct problems

- In 1997 a political decision was made to implement and scale up the use of evidence-based interventions.
- A project was established in 1999 to implement PMTO and MST nationwide.
- In 2003 The Norwegian Center for Child Behavioral Development/ was established to develop, implement and evaluate EBPs
- The initiative were from 4 different ministries: Children and Families, Health, Education and Research, and Justice

*Population: 5 million*  
*19 counties*  
*426 municipalities*  
*5 health regions*





# Mandate

- The center's aim is to strengthen the knowledge and competence to prevent and treat serious behavioral problems among children and youth.
- The center shall engage in research, develop and implement interventions for children, families and schools. The interventions offered must be evidence-based, and experienced as relevant to individually needs.
- NUBU has a nationwide responsibility to support services for children and youth both at a state level and in the municipalities



# Funding

The center is financed through a joint commission from:

- The Norwegian Directorate for Children, Youth and Family Affairs (Bufdir)
- The Norwegian Directorate of Health (Hdir)
- The Norwegian Directorate for Education and Training (Udir)
  
- The Norwegian Directorate for Children, Youth and Family Affairs has from 2009 been in charge of coordinating the commission.
- In addition we have research projects funded by the Research Council of Norway.



# Organization of NUBU

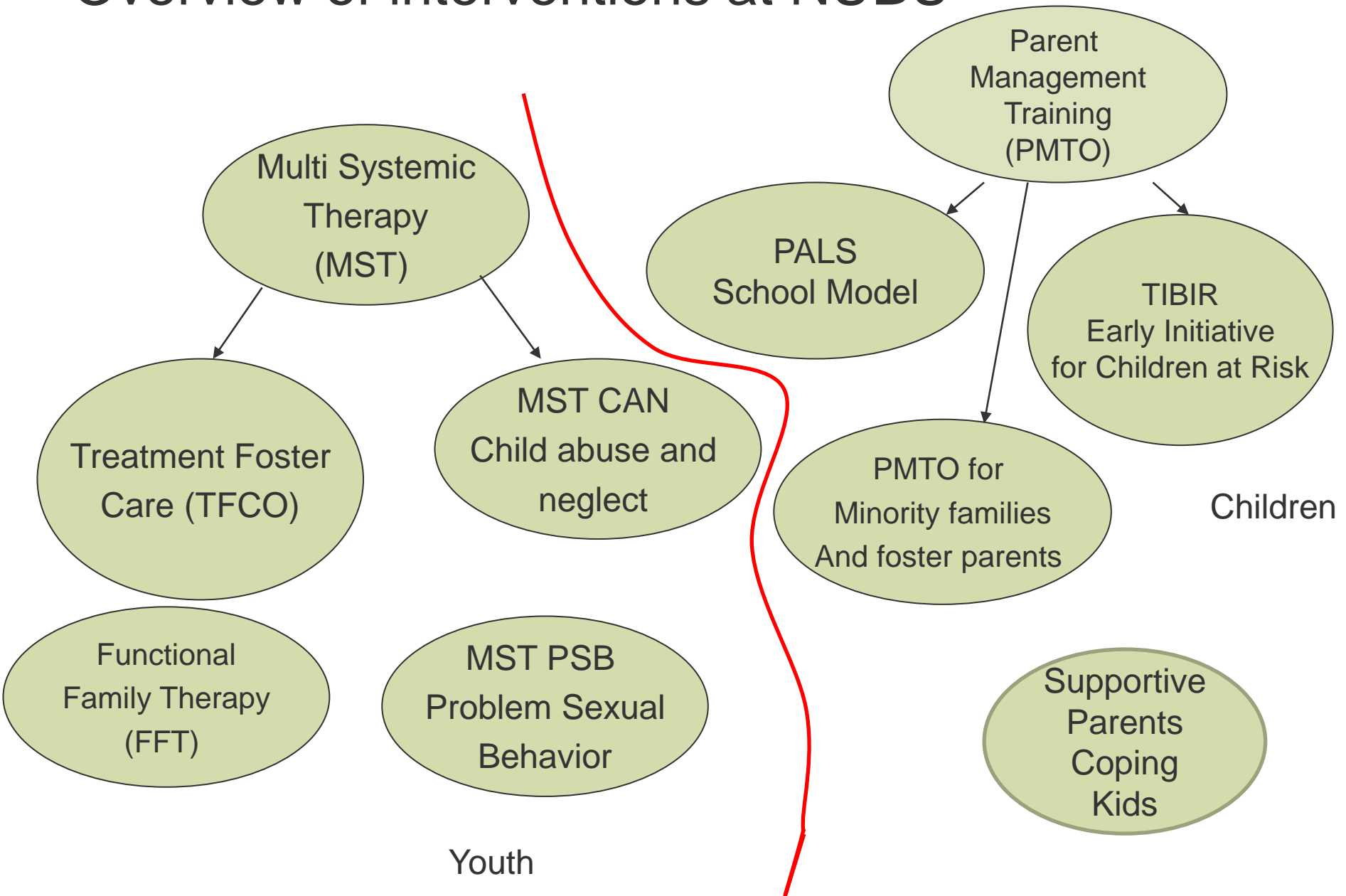
The center is a subsidiary company of NORCE - Norwegian Research Centre AS since 2019.

From 2003-2019 the center was an affiliate of the University of Oslo



Approximately 45 employees

# Overview of interventions at NUBU





# The family and the local environment are key to sustainable changes in parent and child behavior

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- All interventions that are developed and implemented are **family- and community-based** in order to:
  - Prevent and reduce problem behavior and placement out of home.
  - Promote prosocial behavior and a healthy psychological development
  - Encourage positive parent-child interaction
- All interventions are **theory- and evidence-based**, and are evaluated in controlled trials.



# A nationwide implementation of evidence-based interventions

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## TREATMENT

To strengthen competence at state level specialist services in mental health and child welfare for children and youth with conduct problems



## PREVENTION

To make the evidence-based knowledge and principles available in various settings and arenas in municipality-based services for children and youth

*Directive Q-16/01 from The Norwegian Ministry for Children and Family Affairs*





# Developing a Prevention Program based on applied principles from PMTO

PMTO Training of Therapists

TIBIR program development

TIBIR diffusion

- Evaluation of program modules

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## Treatment Effectiveness of Parent Management Training in Norway: A Randomized Controlled Trial of Children With Conduct Problems

Terje Ogden and Kristine Anshel Hagren, University of Oslo

This study was a randomized control trial (RCT) of Parent Management Training—The Oregon Model (PMTO) in Norway. A sample representing all health regions of Norway and consisting of 112 children with conduct problems and their families participated in the study. Families were randomly assigned to either PMTO or a regular services comparison group. PMTO was delivered via existing children's services and families were invited using the agencies' regular referral procedures, making this the first effectiveness study of PMTO and the first RCT of PMTO conducted outside of the United States. Using a multiphase methodological approach, results showed that PMTO was effective in reducing parent-reported child externalizing problems, improving teacher-rated social competence, and reducing parental discipline. Age, sex, and comorbidity modified the effects of PMTO treatment on outcomes. In a post hoc analysis, participation in PMTO was associated with improved parental discipline, and effective discipline predicted greater child compliance, fewer child-reported negative events, and lower levels of child externalizing problems. Findings are presented along with a discussion of the implications for practice and research and the challenges accompanying effectiveness trials.

**Keywords:** parent management training, conduct problems, randomized control trial, effectiveness study, theoretical methodology

Extending behavior in early childhood may for some children be transient and limited to a developmental period. But for many children, early signs of aggressive and disruptive behaviors are indicators of maladaptation and can set the stage for an unfavorable developmental trajectory. Studies have shown that among children who are characterized as antisocial in the preschool years, 50%-60% are still classified as such as adolescents (Kistler, Segal, & Bass, 1992; Tremblay, Masse, Pagan, & Vitaro, 1996). The probability of antisocial development likely increases in those of early onset, in cases with high levels of persistent aggression, and in children who are exposed to a great deal of contextual stress (Campbell, Spitzer, Bushnell, Po, & National Institute of Child Health & Human Development, 2006; Schaffer, Fernald, Ishiguro, Poshak, & Kellam, 2003).

If left untreated, childhood externalizing behavior can result in later difficulties that may include school dropout, one-of-a-kind placements, substance use, criminal involvement, and psychological disorders (Blumenthal & Lee, 2003; Schaffer et al., 2003; Widome-Stratton & Reid, 2003). Developing and refining effective interventions to counteract these negative programs have therefore ranked high on the research agenda in recent years. Programs targeting young children have received particular attention because research has indicated that inter-

ventions are typically most successful at reducing conduct problems in younger samples (Webster-Stratton & Hammond, 1997).

Reviews of evidence-based psychological intervention programs have documented that Parent Management Training, which delivers treatment directly to the parents, is one of the most promising approaches for children with conduct problems (e.g., Kazdin, 1997). In a review article by Brogan and Eysberg (1998), 82 studies of psychosocial treatments for children and youths with conduct problems were evaluated. The Oregon model of Parent Management Training was one of only two interventions identified as well established. The majority of studies reviewed in such evaluations, however, are efficacy trials conducted in controlled research contexts. Results from effectiveness trials, in which programs are implemented and tested in real-world settings, are quite limited (Ogden, Fergusson, Adelman, Peterson, & Bollock, 2005). There is also a scarcity of studies evaluating the transportability of interventions, that is, whether evidence-based programs can be disseminated and implemented successfully in new settings and with different participant groups.

The present study was a randomized controlled trial of Parent Management Training—The Oregon Model (PMTO) using a sample representing all health regions of Norway. The children were referred to children's services agencies for conduct problems. First, we examined the treatment effects of PMTO in key outcome measures. Second, we tested a post hoc model in which PMTO treatment predicted improved parenting skills and parenting skills in turn predicted changes in child behavior.

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## Personality and Social Sciences

### School outcomes of a community-wide intervention model aimed at preventing problem behavior

JOHN KJELLER and MARI-ANNE SOLLELIE, The Norwegian Center for Child Behavioral Development

Kjeller, J., & Sollelie, M.-A. (2008). School outcomes of a community-wide intervention model aimed at preventing problem behavior and lowering problem behavior and promoting social competence in children. The aim of the study was to see whether ECR would result in fewer incidences of problem behavior and improved learning climate in elementary schools in a Norwegian municipality. The municipality was divided in two, each school being equal chance of being assigned to the intervention condition. Participants were principal and school staff. One year after the initiation of ECR, the prevalence of conduct problem behavior was significantly lower, and student results were significantly better for schools located in the intervention area than for schools located in the comparison area. The findings support further development, implementation and research on the ECR model.

**Key words:** Community-wide, problem behavior, PMTO, school outcomes  
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## INTRODUCTION

This article presents immediate overall impacts in elementary schools following the implementation of the "Early Intervention for Children at Risk for Developing Behavioral Problems" (ECR). ECR is a community-wide (i.e., municipality-wide) intervention model developed by the Norwegian Center for Child Behavioral Development (NCCBD), aimed at preventing (i.e., hindering the occurrence of) persistent and serious antisocial behavior and criminal involvement in an at-risk population and treating problem behavior in children in the age range 2-12 years. ECR was first tested and evaluated in one municipality in 2006. The development of the ECR model in the present study is part of a Norwegian nationwide strategy to improve services and efforts offered to children and youth at risk for developing severe behavioral problems. The national effort was initiated by the Ministry of Child and Family Affairs in 1995, and is now supported and financed by four municipalities (Ogden, Fergusson, Adelman, Peterson & Bollock, 2005).

### The rationale behind the ECR model

Problem behavior, as defined in this article, refers to behavior that hampers existing relationships and expectations of society to such a degree that it impedes the development and learning of the child or of other children in the same classroom or during positive social interaction between children and between children

and adults (Ogden, 1998). The importance of an initiative such as the ECR model becomes apparent when considering estimates of the prevalence rates of children at high and moderate risk for developing severe, stable and pervasive problem behavior. One to two percent of children and youths in Norway are considered to be in the high risk group (indicated level), while 2-10% are considered to be in the moderate risk group (collected level) (Sollelie, 2005). These estimates indicate that the number of high-risk children between 4 and 12 years in Norway is between 6,000 and 12,000, and the moderate-risk group include 30,500 to 61,000 children. In the municipality where the ECR model was first tested, 40-80 children were expected to be in the high-risk group, while 200-400 children were expected to be in the moderate-risk group.

The ECR model is based on the notion showing that child externalizing behavior and criminal involvement often have roots in behavior problems that begin in early childhood (e.g., Moffitt & Caspi, 2001; Patterson & Vitaro, 2002), and that trajectories leading to persistent and serious antisocial behavior and criminal involvement can be interrupted through intervention (e.g., Kazdin, 2002; Reid, Webster-Stratton & Boychik, 2004; Sanders, Meritt-Davies & Turner, 2003). An early pattern of extending problem behavior can therefore be seen as an antecedent to later problems. In order to prevent the development of life-course-persistent antisocial behavior, the ECR model has the dual goal of both preventing and treating problem behavior, such as disruptive, aggression, bullying, and delinquency among pre-adolescents.

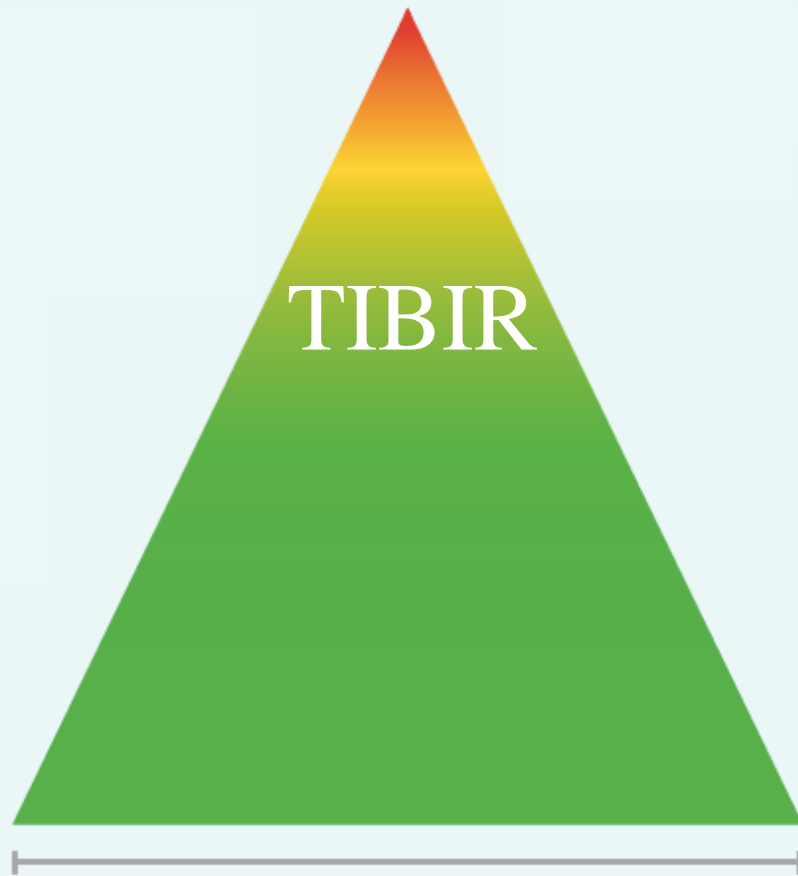
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# Target Group for PMTO and TIBIR:

Families with children  
from 3-12 years with  
behavioral problems





Early Identification and Assessment

-  High risk
-  Moderate risk
-  Low or no risk



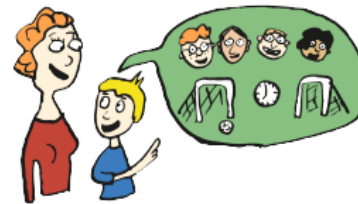
# TIBIR is implemented within existing primary care services



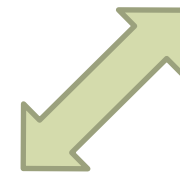
**PMTO, PMTO-GROUP or BPT**  
delivered by  
Child Health Center or Child Welfare



**CONSULTATION**  
delivered by  
Educational-Psychological service



**SOCIAL SKILLS TRAINING**  
delivered by  
School / Kindergarten



**Coordination of services**



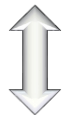
# Implementation infrastructure

The scale-up of TIBIR has made it necessary to choose an implementation strategy which builds up the local capacity:

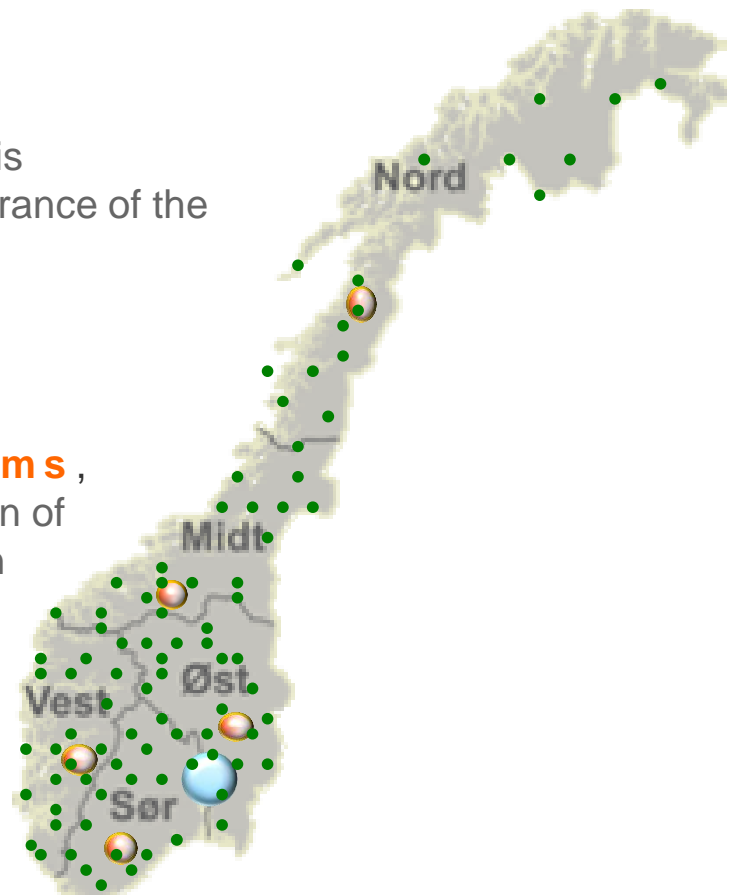
**1 national implementation team** (NIT), who is responsible for development, improvement and quality assurance of the programs and implementation tools.



NIT consists of **5 regional implementation teams**, who are responsible for regional diffusion and implementation of the programs, as well as supporting the local implementation teams.



**106 local implementation teams** are responsible for the practical implementation of TIBIR in their own municipality.





# Factors of success in the Norwegian PMTO-Implementation

- Recruiting **clusters of three** or more practitioners at each agency secured support and stability
- **Developing a system for coaching/supervision**, both for sustaining fidelity and provide the practitioners with professional support to keep up enthusiasm and engagement
- Engaging the **most competent** therapists to hold **varied implementation tasks** (training, coaching, participating in research projects) with enhanced competence and motivation to continue working
- **Stable funding of a National Implementation Team**