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IMPLEMENTATION OF PARENT MANAGEMENT TRAINING AT THE NATIONAL LEVEL: THE CASE OF NORWAY

This article describes early aspects of the nationwide implementation of an evidence-based program (EBP) in Norway and the design for studying program fidelity over time. The EBP is the Parent Management Training, Oregon Model (PMTO). The project is a combination of a 'top down' initiative at the governmental and ministry level, and a 'bottom up' initiative from practitioners seeking effective interventions in the prevention and remediation of behavior problems in children and youth. The main components of the implementation strategy were to (a) establish a national implementation and research center; (b) provide for regional and local participation at county and municipal levels; (c) establish a comprehensive therapist recruitment, training, and maintenance program; (d) create a network for collaboration, supervision, and quality control; (e) conduct clinical outcome research; and (f) study the implementation process. Following the training of three successive generations of PMTO specialists, a study was designed to examine how individual, family, interventionist, organizational, and community characteristics influence program adoption and implementation, as well as how these factors impact upon how PMTO specialists provide the intervention to families with competent adherence to the model. Within the framework of the collaborative North American and Norwegian project, challenges and facilitators in the process of the continental crossing of the PMTO model are discussed.

Keywords parenting; prevention; antisocial behavior; program implementation

This paper describes critical events in the early stages of the nationwide Norwegian implementation of Parent Management Training, Oregon Model (PMTO) and models guiding the study of fidelity to the method. The study evaluates factors that contribute to the successful transfer of an evidence-based program (EBP) from the 'ivory tower' in which the intervention was developed into the world of community practice. The implementation process is examined at family, therapist, organizational, and community levels to identify factors directly and indirectly related to program adoption, implementation, fidelity, sustainability, and behavior change. This joint

effort of implementation and research has provided an ideal forum to examine the path from efficacy and effectiveness trials to nationwide diffusion.

Kellam and Langevin (2003) identify five phases of research on evidence-based methods: (a) efficacy trials in controlled conditions; (b) effectiveness trials in the community; (c) sustainability trials over successive cohorts; (d) going-to-scale trials studying system-wide implementation; and (e) system-wide sustainability. Most programs complete efficacy or effectiveness studies, whereas the process and outcomes of large-scale implementations have rarely been studied systematically. In Norway, events have not followed this idealized schema because the government decided to implement PMTO and Multisystemic Treatment (MST) nationwide with effectiveness trials conducted within the implementation. This lurch into action grew out of several earlier attempts to intervene in youngsters' behavior problems.

Over the last 50 years, several initiatives have been launched in Norway in the search for effective interventions for antisocial behavior in youngsters. For many years, out-of-home placements were considered appropriate, but follow-up studies raised serious doubts about the effectiveness of this approach (Kjelsberg & Dahl, 1998). During the 1960s and 1970s, a decentralized system of child welfare and child and adolescent psychiatric services was established in the five health regions of Norway, but serious antisocial behavior persisted. During the 1990s, the demand grew for better services for children and adolescents with behavior problems (Storvoll, 1997). At times, new initiatives were introduced, but this was without critical evaluation of their theoretical or empirical underpinnings. Few resources had been invested in family- and community-based treatment, or in developing or implementing EBPs. The prevention and remediation of serious behavior problems and the evaluation of program effectiveness had achieved very high priority, and the media pressed for political action.

In 1997, following a survey study undertaken in the Child and Adolescent Services, the Norwegian Research Council hosted a conference to evaluate relevant EBPs. A panel of Norwegian experts, supported by the Ministries of Family and Child Affairs and Social and Health Affairs, recommended three programs to be implemented and evaluated in Norway (Zeiner *et al.*, 1998). PMTO (Forgatch & DeGarmo, 1999; Patterson, 1982, 2005) was selected for prevention and treatment of serious behavioral problems with children aged 5–12. MST (Henggeler *et al.*, 1998) was chosen for treatment of existing problems in adolescents. In addition, the Webster-Stratton program 'The Incredible Years' (Webster-Stratton & Taylor, 2001) was to be tested in two counties in the middle and north of Norway. All three EBPs were seen as improvements over approaches then in use. The decision to recommend and financially support specific interventions at the ministry level was unprecedented.

From efficacy studies to large-scale implementation and sustainability of programs

A joint effort of people from the Ministry of Child and Family Affairs (especially Haktor Helland), the Behavior Center (Terje Ogden, Elisabeth Askeland and Terje Christiansen), and the Oregon Social Learning Center (Marion Forgatch and Gerald

Patterson) designed the nationwide PMTO implementation plan. The main components of the strategy were to (a) establish a national implementation and research center; (b) develop plans for regional and local implementation at county and municipal levels; (c) establish a comprehensive therapist recruitment, training and maintenance program; (d) create a network for collaboration, supervision and quality control; (e) conduct clinical outcome research; and (f) conduct research on the implementation process.

To meet the challenge of nationwide implementation, the Ministry of Child and Family Affairs established a central unit to initiate and coordinate training, supervision, consultation, and research, first as a project at the University of Oslo, Department of Psychology. Over the subsequent five years, the enterprise was transformed from a one-person activity in a temporary location to a permanent and independent center (Norwegian Center for Studies of Conduct Problems and Innovative Practice, hereinafter referred to as The Behavior Center) with a staff of 30, comprising implementation teams for children and youth, as well as a research team. The national project and the permanent center were fully financed by several ministries. Systematic evaluation of intervention effectiveness has become an essential component of the dissemination of new programs.

To conduct a nationwide implementation, a strong commitment at regional and local levels was needed as well as trained professionals strategically located throughout the country. The two participating ministries invited the health directors from all 19 counties in Norway to Oslo for a meeting in which directors were asked to participate in the national implementation. These meetings were followed with letters to county health directors calling for highly qualified candidates for the coming PMTO training. Guidelines for program participation were specified as well as the resources that would be provided and resources that would be required from participating agencies. Candidates were recruited through their workplaces to ensure that trained specialists would be in position to apply their new competencies.

Expenses for the training and supervision of PMTO therapists were covered by a combination of ministry and agency resources. The ministries paid for infrastructure development, program leadership and coordination, training, and supervision costs. The agencies paid for necessary equipment, trainees' salaries, travel expenses, and candidates' time free of standard duties to participate in training activities (e.g. attending workshops and supervision sessions, treating cases for training and certification).

The first generation (G1) of Norwegian professionals began training in 1999. These practitioners were earmarked as potential trainers and supervisors of subsequent PMTO generations. The National Implementation Team (NIT) was recruited from G1 to coordinate and stimulate the implementation all over Norway. The NIT comprised six regional coordinators located in Norway's five health regions and four national consultants located at the center in Oslo. Now, in 2005, two generations of PMTO therapists have been certified and training for the third generation (G3) will be complete in early 2006.

To carry out the PMTO training from a distance of more than 6,000 miles, Marion Forgatch, a senior clinician and scientist at the Oregon Social Learning Center (OSLC), was recruited to form a team to design and conduct the training program.

The details of the program are described in a set of three handbooks (Forgatch *et al.*, 2002). This group also developed a measure of competence and fidelity to the PMTO program (Knutson *et al.*, 2003).

Three generations of PMTO therapists

The three generations of training candidates were recruited from the public Child and Adolescent Services. OSLC professionals trained the G1 in English. During the course of the G1 training, teams were established to translate and adapt materials for the Norwegian culture. Following certification, specialists were selected from the G1 pool to become leaders for PMTO trainings, supervision, fidelity assessment, materials development, implementation planning, and other necessary activities. Translated American materials were gradually transformed into a Norwegian handbook, which contains parent and therapist materials that describe in detail the content of the Norwegian PMTO training program (Askeland, 2005). This comprehensive resource represents the adaptation and integration of the OSLC materials.

To be eligible for training, commitments were required from the candidates, their agency leaders, and the county health directors. Each agency had to agree to (a) approve candidates' participation; (b) ensure candidates' time to work with five PMTO families; (c) allow time for reading, preparation for supervision, participation in workshops, and other training activities (1.5 days/week for G1; 2 days/week for G2 and G3); (d) pay for travel, hotel, and per diem for training activities; and (e) provide relevant technical equipment (e.g. video cameras, videotapes, access to email). Candidates had to agree to conduct the PMTO method with at least five families having at least one youngster exhibiting behavioral problems. The candidates were required to learn essential theoretical and program elements: basics of social interaction learning theory, outcome research demonstrating the program's efficacy, the content of the intervention, how to teach without being pedantic, and how to integrate their own good process skills with the PMTO content to enhance learning and to manage resistance.

Over the course of recruiting three PMTO generations, characteristics of the candidates have shifted, by chance and by design. Data on the PMTO practitioner characteristics are displayed in Table 1.

A total of 197 Norwegian professionals have participated in PMTO training at the time of writing. Training completion with certification has been exceptionally high for both G1 and G2 at 85% and 94%, respectively. In 2005, all but four of the 117 certified therapists are still practicing PMTO on a regular basis and more than 1,800 Norwegian families have received PMTO treatment. The caseload varies among the therapists, from two or three families per year up to 25 families for the most active.

Table 1 reveals a shift in the candidates' professional background, particularly from G1 to the subsequent cohorts. Two categories describe prior training and experience. In *Category 1*, trainees had a minimum of six years of university education in psychology, psychiatry, or education, plus extended clinical practice with children and their families. In *Category 2*, professionals had a three-year college education

TABLE 1 Number of PMTO therapists distributed according to training, educational level and workplace

	<i>started and finished training</i>			<i>educational level</i>		<i>workplace</i>				
	<i>started training</i>	<i>total started</i>	<i>certified</i>	<i>category 1</i>	<i>category 2</i>	<i>mental health county</i>	<i>child welfare county</i>	<i>family counseling county</i>	<i>child & family services municipal</i>	
generation 1	Male	15								
	Female	25	40	34	28	12	24	10	1	0
generation 2	Male	21								
	Female	63	84	79	23	61	47	35	2	0
generation 3	Male	9								
	Female	64	73	N/A	14	59	4	4	0	61
Total			197		65	132	75	49	3	61

mostly in social work, child welfare, nursing, or teaching, plus extended clinical practice in care of children and families. In G1, 70% of the candidates had Category 1 levels of training, reflecting the goal to produce leaders from this founding group. In G2 and G3, Category 1 percentages were considerably lower (27% and 19%, respectively).

Implementation goals were reflected in the working environments from which the Norwegian PMTO trainees were recruited, as can be seen in Table 1. In G1 and G2, candidates were from county services, with approximately 69% from mental health services (child and adolescent psychiatric outpatient clinics) and 29% from child welfare services. In G2, the balance between candidates from mental health and child welfare services was more equal. By plan in G3, recruitment was almost exclusively from the municipalities rather than from the counties and included child welfare services, school psychological services, and maternal health care. Some other sources of recruitment, not included in the table, were three candidates from private institutions, two from universities, and four Danish practitioners designated to train future generations of Danish PMTO therapists.

Supervision and quality assurance

The implementation is led by the NIT, which consists of five National Consultants located in Oslo and six Regional Coordinators located in their respective health region. The NIT has established a comprehensive system of supervision to maintain treatment fidelity and oversee clinical competence. Four supervision levels guide practitioners in varying stages of PMTO expertise. Because supervision is based on observed therapy sessions, all levels of attendees are required to bring videotapes to supervision groups.

NIT supervision

The NIT meets several times a year to discuss their own and their supervisee therapy issues. Some of these meetings include videoconference consultation from senior clinicians at OSLC. To maintain PMTO fidelity throughout Norway, the NIT collects and views videotapes of therapy sessions and rates competent PMTO adherence using the Fidelity of Implementation rating system (FIMP: Forgatch *et al.*, 2005; Knutson *et al.*, 2003), participates in regular reliability checks within Norway and with OSLC, and receives monthly one-hour retraining sessions from OSLC. The NIT also meets two or three days each month to plan and prepare implementation activities.

Maintenance supervision for certified PMTO practitioners

Regional groups with up to eight therapists meet one workday, eight times each year. Therapists share experiences, challenges, and polish teaching and clinical skills. Supervisors record attendance, and PMTO candidates and therapists must have 85% attendance during a three-year period to attain or retain certification.

Training supervision for training candidates

Regional groups of four candidates meet with a supervisor one workday every second week throughout the 18-month training period. Between session telephone conferences are also available.

Colleague supervision

Regional supervisors meet one workday, three or four times annually with their Regional Coordinator. They also attend a one-day maintenance seminar each semester arranged by The Behavior Center.

Study of fidelity in the Norwegian implementation

The tension between maintaining fidelity to an evidence-based practice and adaptation (reinvention) by program adopters is well known (Rogers, 1995). Thus, we expect that the longer PMTO is in place in agencies throughout Norway, the more likely it is that the method will be altered. Support by the National Institute of Drug Abuse (NIDA) has enabled us to study factors contributing to maintenance of and drift from PMTO fidelity. The NIDA study is examining method fidelity within and across generations of PMTO practitioners in Norway. First, it is assumed that competent adherence to PMTO correlates with positive intervention outcomes (Forgatch *et al.*, 2005). Second, we hypothesize that fidelity will change within generations of PMTO therapists over time. Finally, it is expected that adherence to PMTO will 'drift' across successive generations of Norwegian PMTO specialists. We hypothesize that characteristics of important players (e.g. agencies, therapists, and families) will impact the extent to which professionals

demonstrate competent adherence to the PMTO core components. Figure 1 illustrates the model.

In keeping with an earlier study of PMTO fidelity (Forgatch *et al.*, 2005), we expect that high fidelity scores will predict increases in quality of parenting practices. In addition, we will examine the relation between reinvention and outcome. Over time we expect reinvention to contribute to changes in adherence to PMTO, which can be expressed as negative growth from the original model. Such drift will be evaluated within a Hierarchical Linear Model (HLM). The across time evaluation of fidelity requires collecting data from individual therapists using treatment data from a family once a year over three years. Across generation fidelity will be assessed with the three generations of specialists. We will study FIMP score changes introduced by one PMTO generation to another (i.e. G1 to G2 to G3).

Multiple-method and agent-method assessment is an important feature of the study. Parenting practices and fidelity ratings will be scored from different settings, with different coding systems, and by different sets of coders. Intervention staff and site leaders will provide questionnaire data. Staff questionnaires at community agencies will generate two critical covariates: therapists' personal characteristics and beliefs, and organizational characteristics and ideology. We expect these covariates to make significant predictions to the HLM for changes in adherence for the G1, G2, and G3 specialists.

The measure of parenting practices is obtained from structured family interaction tasks using the Family and Peer Process Code (FPPC; Stubbs *et al.*, 1998). The coders are mostly Norwegian students who work approximately 10 hours per week. Each coder scores approximately three videotapes each week, with 20% reliability checks. Coder training for the Norwegian team required approximately five months to achieve reliability and another five months of unstable coding until all coders became consistently reliable.

PMTO fidelity is scored from videotapes of therapy sessions using the FIMP (Knutson *et al.*, 2003). FIMP evaluates a therapist in five areas of competence: PMTO knowledge, structuring, teaching practices, process skills, and overall quality. This specificity permits the evaluation of specific areas in which PMTO drift may have occurred. The Norwegian FIMP coders are certified PMTO therapists, who typically code six videos per month with approximately one third checked for reliability. FIMP reliability was achieved in 67 hours.

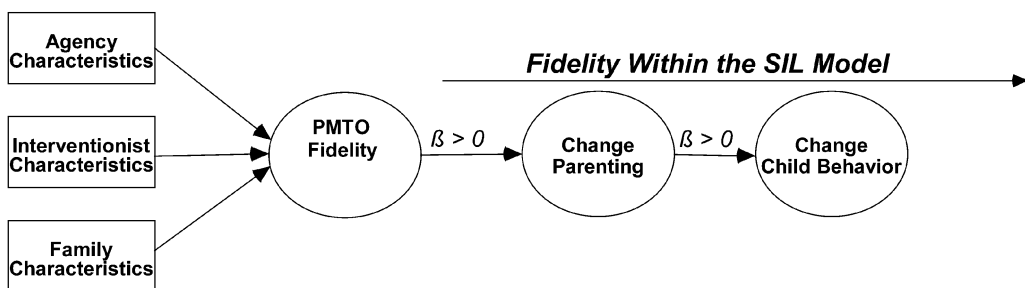


FIGURE 1 Fidelity within the social interaction learning model.

Research strategy and methods

No matter how many studies yield positive results for parents and children in the US, Canada, and elsewhere (e.g. DeGarmo *et al.*, 2004; Forgatch *et al.*, in press; Kazdin, 1997; Patterson *et al.*, 1982; Tremblay *et al.*, 1992), one cannot assume the method will have equivalent results in Norway. To evaluate PMTO effectiveness in Norway, Ogden (2000) initiated a randomized effectiveness trial featuring state-of-the-art methodology. The Norwegian trial is integrated into the daily operations of participating PMTO therapists and agencies as 'clinical therapy' rather than 'research therapy' (Weisz, 1997). Eligible families have children between the ages of 5 and 12 selected from those regularly referred to the participating clinics or agencies. Changes in child behavior are measured in the laboratory and at home and school using multi-informant behavioral assessment, including parent and teacher reports, and videotaped observations of parent-child behavior to assess change in parenting practices and child outcomes. Data will soon be available describing the outcomes of the effectiveness trial. We will also be able to evaluate the relevance of the Social Interaction Learning theoretical model that underlies PMTO (Patterson, 2005) to Norwegian culture.

Challenges to the implementation

Introducing a clearly specified and structured treatment program into the Norwegian world of practice has presented challenges to the program purveyors and to the implementers, trainees, and their organizations. The PMTO training program was comprehensive and intensive, lasting 18 months, and was based on a behavioral orientation that did not match the theoretical orientation of some therapists. Most of the candidates had training emphasizing less structured approaches of an eclectic or dynamic character. Many agency leaders were unfamiliar with implementing structured treatment programs, and matching the program to the practical routines and administrative context of some of the sites was not without problems. In some agencies, introduction of the new program was considered an implicit critique of existing practice and therefore caused some opposition. The NIT team had to confront such resistance at multiple levels with information and negotiation.

PMTO trainees had to adapt to a new method that operates primarily through parent training rather than directly addressing the child. Few trainees had experienced skill-oriented programs with extensive use of role-play during training seminars and therapy sessions. They also had to open up to direct observation of their own work, with videotaping their therapy sessions, and family interactions between parents and children in structured tasks. Candidates learned to appreciate the opportunities that videotape provided to see microsocial processes within the family, within the therapy, and throughout the training.

The G1 group had more challenges to face than later generations. The G1 trainers spoke no Norwegian, training took place in English, and English materials for therapists and families had to be translated. Fortunately the trainees spoke English, but they conducted their work in Norwegian, and the videotaped sessions had to be

translated back and forth. Confidential materials had to be exchanged across the North Pole, and coaching had to be conducted from a great physical distance, not to mention the nine-hour difference in time zones.

Factors facilitating the PMTO implementation

One of the chief factors that has facilitated the nationwide mobilization of PMTO in Norway is the general concern about the growing prevalence of behavior problems among children and youth, particularly the increase in violent crime and drug-related criminal acts in younger age groups (Falck, 2000; Ogden, 2002). Another facilitating factor has been an increased demand for empirically based methods to treat and prevent child and adolescent behavior problems (Loeber & Farrington, 1998; Rutter *et al.*, 1998; Stoff *et al.*, 1997; Zeiner *et al.*, 1998). It is clearly understood that antisocial child behaviors are precursors of more serious problems at later developmental stages, such as delinquency, drug abuse, and violence (Lipsey & Derzon, 1998; Patterson *et al.*, 1998).

Government and administrative officials in relevant ministries issued a call for evidence-based programs that prevent and treat youngsters' behavior problems and they have made a commitment to maintain the implementation on a long-term basis. The media have begun spreading the word that parents like PMTO. Families describe their satisfaction with the method because it provides them with concrete skills for stopping their children's deviant behavior as well as for promoting their healthy development (Forgatch *et al.*, 2004). Reports regularly appear in newspapers, magazines, and interviews with families on the radio and television. Such media attention has created increasing demand for PMTO services by parents, with accompanying interest in developing professional competence by community agencies and their program providers. Furthermore, the motivation and commitment from the three generations of PMTO practitioners have been vital in recruiting more candidates for training.

Certain cultural similarities between the US and Norway have contributed to PMTO success. Both countries are characterized by an egalitarian and informal culture, with much emphasis placed on family and community values. Principles of family preservation and empowerment are valued in both countries, as well as pragmatic and individual autonomy (Sørhaug, 1996). This fits in well with the PMTO model in which the family is the primary focus of intervention, and the parents are empowered to change their children's problem behavior.

Some socio-political differences between the countries have actually facilitated Norway's nationwide implementation in a manner that may not be possible in the US. Both countries have a strong centralized government. Norway is a social-democratic country where most public services are provided by the state; the US is a democracy in which welfare services are based on a mix of help from public and private sectors as well as voluntary organizations (Esping-Andersen, 1990). The balance of resources and methods of financing these services are quite different. In Norway, municipalities have political and administrative autonomy to a high extent and decisions to adopt new programs are usually made at the municipality or agency level. In the US, states and agencies have autonomy and decision-making power. Two dimensions that seem

to fortify Norway's capacity to implement PMTO nationwide are (a) many welfare services are universally available, and (b) 'top-down' governmental initiatives can be more easily executed.

Sufficient resources, strong collaborative relations between the program purveyors and implementers, popular support, availability and enthusiasm for EBPs are all critical factors that make implementation possible (Ferrer-Wreder *et al.*, 2004). However, without the commitment of necessary financial resources, an implementation program may never begin and, when the money dries up, it will falter and die. The determination of the Ministries of Children and Family Affairs and Health and Social Affairs to establish sustainable effective treatment and prevention programs has yielded sufficient funds to launch the implementation and to sustain its progress, at least for the immediate future. Strong leadership combining personal and professional resources has made it possible to build and maintain an extremely competent team.

Concluding thoughts

Little is yet known about the effectiveness of PMTO in community settings and how to move empirically based programs into communities on a large scale. The Norwegian program is the first example of PMTO being disseminated and implemented on a nationwide level. Michigan is about to launch a statewide implementation of the method and a large-scale dissemination is planned in the near future in The Netherlands. In the meantime, far too many children with antisocial behavior problems are ignored until they become 'too difficult to treat', and then they are institutionalized or relabeled as hyperactive. If the youngsters diagnosed as ADHD receive clinical intervention — and most do not — they are likely to be medicated for hyperactivity, which may slow them down but has little impact on aggression and substance abuse (Patterson *et al.*, 2000a).

If children and their families do not receive help with childhood antisocial behavior, the problems become more serious (Patterson *et al.*, 1998). Festering problems can lead to criminal acts and when these youngsters get caught, they are all too often incarcerated with other troublesome youngsters who teach them more advanced forms of delinquent behavior (Dishion *et al.*, 1994; Patterson, 2002; Patterson *et al.*, 2000b). Children and families deserve to receive the very best intervention programs demonstrated to promote healthy development and prevent and reduce behavior problems. To make such programs available to whole populations, we must study the factors that facilitate and impede successful dissemination.

At the present time, the PMTO model is being implemented in Norway with no major modifications to the core components. When conducting models of adoption, sustainability, and competent adherence to PMTO throughout Norway, it will be essential to attend to the differences in contexts between the two countries. We have not yet been able to conceptualize the exact nature of the differences in culture and contexts and what consequences they may have for PMTO adoption. So far our focus has been more on similarities than on differences. In the microsocial analysis of families with antisocial children, some risk factors and family processes seem universal, and the core components of PMTO seem to work equally well in families in

both countries. The results from the collaborative research activities will hopefully shed more light on these topics.

Acknowledgements

Support for this project was provided by Grant Nos. RO1 DA 16097 from the Prevention Research Branch, NIDA, US PHS; RO1 MH 38318 from the Child and Adolescent Treatment and Preventive Intervention Research Branch, DSIR, NIMH, US PHS; and P30 MH 46690 from the Prevention and Behavioral Medicine Research Branch, Division of Epidemiology and Services Research, NIMH & ORMH, US PHS.

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