ENCYCLOPEDIA on Early Childhood Development

Parent Management Training Interventions for Preschool-Age Children

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Introduction

There is a substantial and growing body of evidence concerning the important role that familial risk factors play in facilitating young children's entry and progression along the "early-starter" pathway of conduct problems. This pathway is characterized by three elements: the onset of conduct problems (such as developmentally excessive levels of aggression, noncompliance, and other oppositional behaviour) in the preschool and early school-age years; a high degree of continuity throughout childhood and into adolescence and adulthood; and a poor prognosis.[1,2] The most comprehensive family-based formulation for the early-starter pathway has been the coercion model developed by Patterson and his colleagues.[3,4] The model describes a process of "basic training" in conduct-problem behaviours that occurs in the context of an escalating cycle of coercive parent-child interactions in the home, beginning prior to school entry. The proximal cause for entry into the coercive cycle is thought to be ineffective parental management strategies, particularly in regard to child compliance with parental directives during the preschool period. Types of parenting practices that have been closely associated with the

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development of child conduct problems include inconsistent discipline, irritable explosive discipline, low supervision and involvement, and inflexible rigid discipline.[5] As this process of ineffective parent management continues over long periods, significant increases in the rate and intensity of child coercive behaviours occur as family members are reinforced by engaging in aggressive behaviours. Coercive interactions with siblings can also play a role in the development and maintenance of conduct problems.[6] Other family risk factors that may have direct or indirect effects on parenting practices include maladaptive social cognitions, personal (e.g., antisocial behaviour, substance use, maternal depression) and interparental (e.g., marital problems) distress, and greater social isolation (e.g., insularity).[1,7]

Subject

Parent Management Training (PMT) can be defined as an approach to treating child behaviour problems by using "procedures in which parents are trained to alter their child's behavior in the home. The parents meet with a therapist or trainer who teaches them to use specific procedures to alter interactions with their child, to promote prosocial behavior, and to decrease deviant behavior."[8] PMT has been applied to a broad array of child problems and populations, but it has been primarily employed in the treatment of preadolescent (i.e., preschool- to school-age) children who exhibit overt conduct-problem behaviours such as temper tantrums, aggression, and excessive noncompliance, and it is in this area that PMT has the greatest empirical support. This article will focus on PMT interventions for preschool-age (three to five years old) children who engage in excessive levels of overt conduct problems.

The underlying assumption of social learning–based PMT models is that some sort of parenting skills deficit has been at least partly responsible for the development and/or maintenance of the conduct-problem behaviours. The core elements of the PMT model include the following approaches: First, intervention is conducted primarily with the parents, with relatively less therapist-child contact. Second, therapists refocus parents' attention away from conduct-problem behaviour toward prosocial goals. Third, the content of these programs typically includes instruction in the social learning principles underlying the parenting techniques. Parents are trained in defining, monitoring, and tracking child behaviour; in positive reinforcement procedures, including praise and other forms of positive parent attention and token or point systems; in extinction and mild punishment procedures, such as ignoring, response cost, and time out in lieu of physical punishment; in giving clear instructions or commands; and in problem solving. Finally, in the PMT approach, therapists make extensive use of didactic instruction,

modelling, role playing, behavioural rehearsal, and structured homework exercises to promote effective parenting.[8-10]

Problems

Despite the increasing emphasis on the use of evidence-based practice in this area,[11,12] the overwhelming majority of commercially available family-based interventions have never been evaluated in a systematic and rigorous manner. Yet these programs are widely used, and their numbers increase each year.

The picture is more positive with respect to social learning-based PMT interventions. However, although the short-term efficacy of PMT in producing changes in both parent and child behaviours has been demonstrated repeatedly (see below), PMT is not effective with all families. First, as with other types of treatment for children, dropouts occur, with average rates approximating 28 percent.[13] Second, for families that do stay engaged, PMT interventions have demonstrated their generalizability (e.g., to the home, over time, to other children in the family) and social validity (i.e., whether therapeutic changes are “clinically or socially important” for the client[14]) to varying degrees — some quite impressively, others to a moderate degree, and others not at all.[12]

Third, although there are some data about various child and family characteristics that predict outcome (e.g., socioeconomic disadvantage, severity of child behaviour, maternal adjustment problems, treatment barriers), there has been a relative dearth of attention paid to a) the actual processes of change that are induced by PMT and b) whether there are certain subgroups (e.g., based on child gender or minority status or family socioeconomic status) for whom PMT is more or less effective.[15-17]

Research Context

In the past 45 years, hundreds of studies focusing on PMT with children with conduct problems have appeared.[10-12,15-18] Study designs have ranged from case descriptions, single-case designs, and simple pre- to post-treatment evaluations to large-scale, randomized controlled trials with various control and alternative treatment comparison conditions. In general, the methodological sophistication of many of these evaluations is quite high.[7,11,15-16]

Key Research Questions

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1. What is the evidence for the efficacy, generalization, and social validity of PMT interventions with young children?
2. What are the mechanisms by which changes in child behaviour are achieved?
3. Is PMT differentially efficacious a) for various subgroups of children, parents, or families and b) as a function of the form and type of the PMT intervention itself? If not, are subgroup-specific interventions needed to improve the intervention?
4. What is the best way to disseminate evidence-based PMT interventions to the broader community (locally and internationally) so that they are employed with reasonable fidelity but with allowance for necessary site-specific adaptations?

Research Results

Efficacy, generalization, and social validity

PMT interventions with preadolescent (including those age five years and younger) children have been the focus of the largest and most sophisticated body of intervention research with children with conduct problems, and present the most promising results. PMT interventions have been successfully utilized in the clinic and home settings, have been implemented with individual families or with groups of families, and have involved some or all of the instructional techniques listed above. Self-administered PMT interventions can be effective with certain families, although other families may require more intensive interventions.[16,19] Immediate treatment outcome has been quantified by changes in parental behaviour (e.g., less directive, controlling, and critical, and more positive), child behaviour (e.g., less physically and verbally aggressive, more compliant, and less destructive), and parental perceptions of the children's adjustment, with effect sizes ranging from medium for parent behaviour and adjustment to medium to large for child behaviour.[16,20-22] One meta-analytic study[23] found that teaching parents to interact positively with their children and requiring parents to practice with their child during treatment sessions were associated with more positive parenting and child outcomes. Emotion communication skills also were associated with positive parenting outcomes, and teaching parents to use time out correctly and to respond consistently to the child were associated with positive child outcomes. Recent reviews[11,12] have identified a number of PMT interventions that have a strong evidence base for improving conduct-problem behaviour in preschool-age children, including Helping the Noncompliant Child,[24] the Incredible Years,[25] Parent-Child Interaction Therapy,[26] Parent Management Training-Oregon,[27] and Triple P (Positive Parenting Program).[28]

Generalization of positive intervention effects to the home, over significant follow-up periods (up to 14 years post-treatment and longer), to untreated siblings, and to untreated behaviours has been demonstrated for many of these interventions as well. The social validity (e.g., consumer satisfaction, improvement to the normative range) of these effects has also been documented. For example, in their meta-analytic review of parent training, Serketich and Dumas[22] reported that 17 of 19 intervention groups dropped below the clinical range after treatment on at least one measure, and 14 groups did so on all measures. Furthermore, the five PMT programs noted above have been positively evaluated in comparison with no-treatment, waiting-list, and/or attention-placebo control conditions, as well as with alternative family-based treatments[29] and available community mental health services.[30]

Mechanisms

Changes in parenting behaviour have now been shown in several studies to mediate the effects of PMT with young children with conduct problems.[15] This is a critical finding that goes to the core of PMT, as improvement in parenting behaviour is hypothesized to be the central mechanism by which change in child behaviour occurs. However, it is important to note that the majority of studies reviewed did not find support for parenting behaviour as a mediator.[15]

Moderation

In general, there has been a dearth of attention paid to the extent to which PMT may be differentially efficacious with different subgroups of children, parents, and families, or as a function of different aspects of PMT (e.g., treatment delivery mode). Candidates as possible moderators of efficacy include child characteristics such as severity of the child's conduct-problem behaviour, extent of comorbid problems (e.g., ADHD, anxiety/depression, callous-unemotional (CU) traits), age, gender, and minority status. Examples of parent and family characteristics that might serve as potential moderators include personal and marital adjustment, single-parent status, and family socioeconomic status. A meta-analytic study that examined moderators of PMT found that less severe child conduct problems, single-parent status, economic disadvantage (i.e., low socioeconomic status), and group-administered (as opposed to individually-administered) PMT resulted in poorer child behaviour outcomes in PMT.[16] Interestingly, child age was not a significant moderator. Lundahl et al.[16] reported that among disadvantaged families, individual PMT was associated with more positive child and parent behavioural outcomes than group PMT. Child gender does not appear to moderate PMT

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outcomes, although the research is limited.

One area of current research interest is the extent to which PMT is efficacious with a subgroup of children with early starting conduct problems who also display CU traits (or limited prosocial emotions in the DSM-5[31]). CU traits are characterized by a lack of regard for others' feelings, deficient guilt associated with wrongdoing, restricted emotionality, and a lack of concern about performance, and are associated with a significantly poorer prognosis than for other children with early starting conduct problems.[32] Children with conduct problems and elevated levels of CU traits do not respond as well to traditional PMT interventions as do other children with conduct problems. In a recent review, CU traits were associated with poorer outcomes from PMT in 81% (9 of 11) of the studies.[33] However, it is also the case that these children do respond to PMT, but to a lesser degree than other children. Furthermore, two studies have documented decreases in CU traits (in addition to decreases in conduct problems) as a function of PMT.[34,35] It has been suggested that additional emphasis be placed on the promotion of parental warmth and positive reinforcement in PMT interventions with these children.[33]

Effectiveness/dissemination

Large-scale effectiveness trials of PMT as well as cross-cultural dissemination studies are becoming increasingly more common. These research efforts provide essential information on transporting these interventions to real-world settings and the feasibility of utilizing PMT interventions with diverse populations. Michelson et al.[36] meta-analysis demonstrated that PMT worked when conducted in "real-world" settings, as indicated by a) clinic-referred samples, b) non-specialist therapists, c) routine settings, and d) as part of a routine service. Cross-cultural effectiveness trials of the Incredible Years, Triple P, and Parent Management Training-Oregon programs have been conducted in Europe, Asia, Australia, and North America.[30,37-40] Triple P is currently being implemented in more than 20 countries.[28] Efforts to establish PMT in developing countries are also currently underway.[41]

Conclusions

A PMT approach to intervention for young children with conduct problems is arguably the intervention of choice, given the substantial empirical support for efficacy, generalization, and social validity. There is also increasing empirical support for the premise that change in parental behaviour is a key mechanism in producing child behaviour change. Meta-analytic research

suggests that the efficacy of PMT for child behaviour change is less for economically disadvantaged and single-parent families and for children with CU traits; greater when administered to children with more severe conduct problems and to individual families rather than in groups; and is comparable in efficacy for boys and girls and for majority and minority samples. Large-scale effectiveness and dissemination trials, many of them in international settings, are providing important information concerning the feasibility of implementing PMT interventions in the real world.

Implications

As a first step, it is critical that policy-makers choose PMT programs that have an adequate empirical base. Reference to key reviews[7,11,12] can be a useful starting point for the identification of potential PMT interventions.

With respect to delivery systems, group-based PMT can be a cost-effective alternative to working with individual families in some instances, although PMT with individual families may be more efficacious, especially with economically disadvantaged families. In some cases, self-administered PMT may be sufficient. Guidelines for the selection of particular modes of PMT are needed.

Interest in interventions for the prevention of conduct problems has burgeoned over the past 25 years, stimulated partly by increased knowledge about the early-starter pathway of conduct problems. PMT may have significant preventive effects, especially if it is applied during the preschool period,[42] or is a component of broader preventive interventions for school-age children at risk for conduct problems.[43,44] An integrative review of 26 reviews and meta-analyses (1,075 studies) published between 1990 and 2008 found that PMT interventions had a larger effect size than either child focused or school/community based interventions (ds = .56,.41, and .28, respectively).[45] If PMT can play a role in the prevention of conduct problems, that will have important implications for reducing the need for ongoing interventions throughout the developmental period and adulthood.

One of the more compelling reasons for the utilization of PMT on a large scale is its potential economic benefit. Children with early starting conduct problems are likely to incur significant economic consequences. It has been estimated that the potential value of saving a single youth from a criminal career ranges from $3.2 to $5.5 million.[46] The empirical support for PMT, the

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availability of manuals (which assists in standardized use and dissemination) for many PMT programs and multiple-level delivery systems, and its potential for preventive effects are all conducive to significant economic savings. When analyzed as part of a cost-benefit study conducted by the Washington State Institute of Public Policy,[47] benefit-to-cost ratios ranged from 1.20 to 5.63 for the Incredible Years, Parent-Child Interaction Therapy, and Triple P (i.e., for every dollar spent, savings ranged from $1.20 to more than $5).

Despite this very positive evaluation of PMT as an intervention for young children with conduct problems, there are a number of areas that warrant continued and increased attention. These include: a) development of treatment selection guidelines; b) continued emphasis on identification and elaboration of the processes of family engagement and change in PMT;[48] c) examination of strategies for enhancing outcome and generalization of effects, especially with respect to underserved groups; d) the role of PMT as a preventive intervention; and e) greater attention to the conceptual, empirical, and pragmatic issues that are involved in large-scale dissemination.[49] Incorporating innovative technologies in the design, delivery, and enhancement of PMT (e.g., via the internet and smartphone apps) is particularly promising.[50]

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