Conduct Problems
Effective Programmes for 3-7 Year-olds

2009

Report by the Advisory Group on Conduct Problems
Advisory Group for Conduct Problems

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Executive summary

This is the second in a series of reports prepared by the Advisory Group on Conduct Problems (AGCP) on the prevention, treatment and management of conduct problems in young people.

For the purpose of this and all reports prepared by the AGCP conduct problems are defined as: Childhood conduct problems include a spectrum of anti-social, aggressive, dishonest, delinquent, defiant and disruptive behaviours. These behaviours may vary from none to severe, and may have the following consequences for the child/young person and those around him/her - stress, distress and concern to adult caregivers and authority figures, threats to the physical safety of the young people involved and their peers, disruption of home, school or other environments, and involvement of the criminal justice system.

The focus of this report is on the identification, implementation and evaluation of programmes and interventions for children aged 3-7. The report is divided into seven parts which address various aspects of this issue.

Part 1 sets the background to the report and presents:

• A rationale for focusing on three-year-olds: It is noted that the evidence for effective interventions is strongest for this group and that early intervention is likely to have greater benefits than interventions with older children.

• A statement about the underlying assumptions of the report: It is noted that the report is based around a prevention science methodology in which the identification of effective programmes is based on review of the available scientific evidence. This approach also emphasises the need for the implementation of programmes and interventions to be accompanied by adequate evaluation, including well-designed pilot studies and randomised trials.

• A consideration of Treaty issues: It is noted that the prevention science paradigm used in the report is not fully consistent with the emerging kaupapa Māori research paradigm. To resolve the tensions between these two approaches the AGCP proposes a solution based around the development of parallel generic and Te Ao Māori approaches. The present report focuses on the development of voluntary services for all children in New Zealand with these services being based on a prevention science model. It is noted that the adoption of this approach in no way prevents or precludes the development of parallel Te Ao Māori approaches.

Part 2 presents a discussion of the selection and classification of effective interventions for addressing conduct problems in 3-7 year-olds including:

• Classificatory scheme: After reviewing the evidence, the AGCP proposes that effective programmes may be classified according to the site at which the programme is delivered (home, school) and the intensity of the intervention. The intensity of the intervention is classified into three tiers - Tier 1 universal programmes that are delivered to all children, families or schools; Tier 2 targeted programmes which would normally be the first programme offered for children with significant conduct problems; Tier 3 targeted intensive programmes which are offered for children who do not show improvement following treatment with a Tier 2 intervention. This classification scheme thus defines a 2x3 table of site of intervention (home, school) by intensity of intervention (Tiers 1-3).
• Identification of effective programmes: On the basis of reviews of the evidence on effective interventions, the following interventions were identified as effective for the treatment and management of conduct problems in 3-7 year-olds:

- parent management training programmes which provide parents with training in skills and strategies for managing child behaviours
- teacher management training programmes which provide teachers with training in the skills and strategies required to manage problem behaviours
- multidimensional treatment foster care, which provides a systemic method for treating and managing conduct problems in children who, for various reasons, may have been removed from their home environment and placed in alternative care.

• Summary of evidence: The review of evidence identified a total of eight interventions for which there was strong evidence of programme efficacy. This evidence is summarised in Appendix 1 to the report which provides a detailed account of the programme objectives, the conceptual framework of the programme, a description of the intervention(s), evidence of effectiveness and programme availability and costs.

• Recommended programmes: After consideration of the evidence reviewed in Table 1 the AGCP recommended the portfolio of programmes shown in the table below was suitable for the treatment and management of conduct problems in 3-7 year-olds.

Table 1: Proposed portfolio of evidence-based programmes for children aged 3-7 years

<table>
<thead>
<tr>
<th>Tier</th>
<th>Description</th>
<th>Recommended programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Parents</td>
</tr>
<tr>
<td>1</td>
<td>Universal</td>
<td>Triple P (level 1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Targeted</td>
<td>Parent management training (Oregon)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Triple P (level 4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incredible Years basic</td>
</tr>
<tr>
<td>3</td>
<td>Intensive</td>
<td>Triple P (level 5)</td>
</tr>
<tr>
<td></td>
<td>(for children who make little progress as a result of Tier 2 intervention)</td>
<td>Incredible Years advanced</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Parent Child Interaction Therapy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Multidimensional treatment foster care (Oregon type)</td>
</tr>
</tbody>
</table>

• Development of programme portfolio: It is proposed to develop the programme portfolio with initial work focusing on the development, implementation and evaluation of two Tier 2 interventions targeted at children with significant conduct problems. The recommended programmes are the Incredible Years Basic Parent Programme (IYBPP) and the teacher
component of the First Step to Success (FSS) programme. These programmes were selected on the grounds that:

- there was strong evidence of programme efficacy from at least two randomised trials
- the programmes were well-suited for adaptation to a New Zealand context.

Part 3 focuses on the key issues involved in the implementation and evaluation of IYBPP and FSS. These issues include:

- Site for programme implementation and evaluation: After a review of the various options the AGCP concluded that the most promising site for the implementation and evaluation of the programmes was provided by Group Special Education (GSE) of the Ministry of Education. The principal reasons for choosing GSE was that this group already had experience in implementing the Incredible Years programme and was well-placed to further develop both home and school-based interventions.

- The need for pilot research: The report emphasises the need for thorough pilot research into all programmes to ensure that issues relating to programme fidelity, staff training, cultural appropriateness and related issues are addressed before programmes are implemented widely.

- Randomised wait list trials: An important step in installing new programmes in New Zealand is to ensure the programme works as effectively in New Zealand as it does in the social context in which it was developed. The report proposes the use of a randomised wait list trial methodology for testing the effectiveness of IYBPP and FSS in a New Zealand context. This methodology is described in detail on pages 18 and 19 of the report.

Part 4 examines the issues involved in programme implementation of IYBPP and FSS. These issues include:

- The importance of ensuring implementation fidelity, including programme adherence exposure, quality and participant responsiveness.

- Factors influencing implementation fidelity, including organisation factors, staff-related factors, client-related factors and cultural factors.

Part 5 takes a broader perspective on the development of the programme portfolio set out in Table 1. Key issues addressed include:

- The need to develop universal programmes for both home and school settings.

- The importance of increased investments into teacher training and support for both primary school and early childhood teachers.

- The need to ensure investments are made into intensive Tier 3 programmes to meet the needs of children and families who are not responsive to targeted Tier 2 programmes.

- Key issues in taking interventions to scale including the importance of practitioner training, the role of client engagement, the need for monitoring and audit of programme outcomes and the importance of developing organisational structures that have the capacity to develop, pilot and evaluate intervention programmes. To address these issues the AGCP proposes the development of a dedicated research and development unit based around a government/university partnership.
Part 6 examines issues relating to programme development, implementation and evaluation from Māori, Pacific and Asian perspectives. Key themes in this discussion include:

- A lack of awareness about cultural differences can make it difficult for both providers of services and clients/families to achieve the best outcomes. Often there is lack of awareness of these differences and their impact.

- For all programmes it is important that they are culturally acceptable and delivered in culturally-appropriate ways. This requires providers of conduct problem services to be culturally competent as a core skill.

- Consultation and participation by Māori, Pacific and Asian communities is required to improve the cultural competence of programme providers and better educate their respective communities about conduct problems.

- A Māori, Pacific or Asian person’s knowledge, understanding of wellbeing and realities must be considered valid and significant in establishing clinical/personal trust.

Part 7 presents an overview of the report and sets out a series of 27 recommendations. The section notes that three key themes dominate the report:

- The use of a prevention science paradigm: The first theme concerns the importance of using the prevention science paradigm in the process of selecting, installing and evaluating effective programmes for a New Zealand context.

- The need for multi-level intervention: The second theme concerns the importance of developing a portfolio of interventions for home and school contexts with these interventions varying in intensity, from universal programmes directed at all families and schools, to highly intensive programmes targeted at children showing severe and persistent conduct difficulties.

- Recognition of cultural diversity: The third major theme in the report concerns the importance of recognising cultural diversity in the implementation and evaluation of programmes. As was noted earlier, the use of a prevention science paradigm to identify effective programmes for all of New Zealand does not preclude the possibility of developing culturally-specific programmes using Te Ao Māori or other cultural framework.

The report concludes with a series of 27 recommendations, all of which centre around the key themes developed above.
Part 1: Background to the report

1.1 Introduction

1.1.1 This is the second of a series of reports being prepared by the Advisory Group on Conduct Problems (AGCP) to provide advice to Government about the development of programmes and policies to address conduct problems in childhood. As noted in its previous report (Blissett et al 2009) the term conduct problems is being used to refer to a constellation of aggressive, anti-social, defiant and oppositional behaviours which, when present in children, predict a wide range of social, educational and health outcomes in later life. Within the health sector children who engage in these behaviours are often described as children with conduct disorder or oppositional defiant disorder whereas within education they are often described as children with challenging behaviour or children with severe anti-social behaviour. Despite differences in terminology in health, education and welfare sectors, concern focuses on between 5-10 per cent of children and adolescents whose conduct difficulties pose threats to their current and future healthy development (Fergusson 2009).

1.1.2 The first report (Blissett et al 2009) reviewed evidence on the prevalence, consequences and treatment of conduct problems in childhood and concluded:

- that there was a strong case for developing effective methods for treating and managing these problems
- there was considerable evidence to suggest that effective interventions were now available.

1.1.3 The report then went on to recommend that the first priority in policy development in this area should involve the development of well-evaluated interventions for children aged 3–7, with the focus of these interventions being on a reduction of rates of conduct problems and anti-social behaviours. There were two reasons for choosing this age range. First, the evidence on effective interventions is strongest for this age group (Church 2003, Scott 2008) and it was believed that the policy development process should begin where the evidence was the best. Second, there are considerable theoretical and empirical reasons for believing that early intervention is likely to have greater long-term benefits, and to be more cost-effective than later intervention (Connor et al 2006; Edwards, Ceilleachair, Bywater, Hughes & Hutchings 2007; Ialongo, Poduska, Werthamer & Kellam 2001; Webster-Stratton & Taylor 2001). For both of these reasons the AGCP believed that the development of effective interventions for the 3-7 year-old group was the best place to begin the policy development process. This report focuses on a series of issues relating to the development of effective interventions for 3-7 year-old children with significant levels of childhood conduct problems.

1.1.4 The report is divided into a number of parts which deal with specific aspects of developing interventions:

- Part 2 - programme selection: This part presents an overview of the interventions and develops a series of criteria for identifying interventions that are likely to be effective with this population within a New Zealand context. Interventions are then classified by the setting within which the intervention is delivered (home, school). Interventions are further classified into three tiers reflecting the intensity of the intervention. The section concludes with a recommendation that the first steps of the policy process should begin with the
development and evaluation of two Tier 2 intervention programmes with one programme (IYBPP) (RAND Corporation 2006; Webster-Stratton 1986) being focused on parent management training and the other (FSS) (Golly, Stiller, & Walker 1998; Walker et al 1998) being focused on teacher management training delivered by Resource Teachers of Learning and Behaviour (RTLB).

- Part 3 - implementing and evaluating the IYBPP and FSS: This section outlines the elements of research designs to evaluate the Incredible Years and First Steps programmes. Key issues addressed include the sites at which the interventions should be developed, the need for pilot research and randomised trials and the development of a randomised wait list evaluation design.

- Part 4 - key issues in the implementation of the IYBPP and FSS programmes: This section examines a range of issues relating to the fidelity of programme implementation (Centre for Substance Abuse Prevention 2001; Mihalic, Fagan, Irwin, Ballard & Elliot 2002; O'Donnell 2008). This section addresses the role of staff-related factors, client-related factors and cultural factors that may inhibit or enhance the successful implementation of the proposed interventions.

- Part 5 - further development of interventions: This section examines issues relating to the implementation of a wider portfolio of interventions and policies aimed at the prevention, treatment and management of conduct problems in 3-7 year-olds. These interventions include Tier 1 universal interventions, Tier 2 interventions for children with significant conduct problems and Tier 3 interventions for children whose behaviour is not improved as a result of Tier 2 intervention. Recommendations for both home and pre-school/school-based interventions are provided. The section also discusses issues involved in taking interventions to scale and the organisational structures needed to implement and evaluate the portfolio of recommended interventions.

- Part 6 - cultural issues: This section discusses issues of programme selection, implementation and evaluation from Māori, Pacific and Asian perspectives. While these sections have been written from different cultural perspectives, all emphasise a number of common themes that centre around the importance of the recognition of cultural differences, the need for cultural consultation, the need for appropriately-trained staff and the role of the family/whānau.

- Part 7 - conclusions and recommendations: This section draws together the themes developed in the report and lists a series of 27 recommendations about the development of policies to prevent, treat and manage conduct problems in 3-7 year-olds.

1.2 The assumptions of this report

1.2.1 The recommendations contained in this report are based upon an agreed set of assumptions shared by members of the AGCP. These assumptions centre around the view that the best route to effective policy development in this area is one based on the prevention science paradigm (Mrazek & Haggerty 1994; Olds, Sadler & Kitzman 2007). The key elements of this paradigm are:

- The selection of policies and programmes should be based on reviews and meta-analyses of evidence from the scientific literature.
• The development of an intervention should be preceded by thorough pilot research to examine programme feasibility, acceptability and factors affecting fidelity of delivery.

• A critical stage of the implementation process requires the use of randomised controlled trials in which those exposed to the intervention are compared with those receiving “treatment as usual” to determine whether the proposed intervention has benefits additional to those of existing treatments. This stage of the implementation/evaluation process establishes what has been described as programme effectiveness - whether the programme has benefits when tested under real life conditions.

• The final stage of the process requires implementing programmes with proven effectiveness on a population-wide basis. This stage of the process can be used to establish the extent to which the programme retains its effectiveness when implemented across the entire country.

1.2.2 The committee was aware of the critiques of the prevention science and related paradigms, and particularly the use of randomised controlled trials that have appeared in the social science literature (eg. McCall & Green 2004; Midford 2008; Schorr 2003). At the same time the committee was of the view that these critiques have failed to take into account the rapid growth of prevention science methodology, the increasing body of knowledge provided by research within this framework and the increasing impact that such knowledge is having on policy throughout the world (Flay et al 2005). The material reviewed in this report reflects the extent of this growth. The programmes recommended in this report have been evaluated in more than 50 randomised trials implemented in multiple social contexts that include the United States, Canada, Norway, the United Kingdom, Ireland, Spain and Australia.

1.2.3 These convergences of knowledge developed, transplanted and replicated across multiple societies form the foundations of the ideas and recommendations developed in this report. The explicit adoption of a prevention science framework for policy development raises important issues about the interface between science-based policy and policy for Māori. In particular, in recent years there have been growing views among Māori about the need to develop policies founded on indigenous models of knowledge and to place such policies in what has become known as a kaupapa Māori framework (Bishop 1999; Marie & Haig 2009; Smith 1999). This raises the following issue. The prevention science framework espoused by the AGCP and the emerging kaupapa Māori model have a number of fundamental and probably irreconcilable differences about the nature of explanation and evidence (eg. Bishop 1999; Marie & Haig 2009; Smith 1999). In its first report, the AGCP considered these issues in depth and proposed that the best approach to resolving the strains that exist between Western science and the kaupapa Māori model was to use a solution based directly on Articles 2 and 3 of the Treaty of Waitangi.

1.2.4 The solution proposed was as follows:

• To meet the obligations implied by Article 2 of the Treaty Waitangi, it was proposed that an expert Māori committee should be set up to develop policies related to conduct problems from a Te Ao Māori perspective

• The AGCP should focus on the development of generic services for all New Zealanders. To meet the obligations implied by Article 3 of the Treaty of Waitangi, the development of such policies requires that services are provided to Māori in a culturally appropriate way.
1.2.5 The important implication of this solution is that the policies and intervention proposed in this report are prevention science-based recommendations designed to provide generic services for all New Zealanders (including Māori). However, none of the suggestions, recommendations or conclusions developed in this report preclude, in any way, the development of Te Ao Māori-based services and interventions to provide assistance to Māori by Māori within a Māori framework.
Part 2: Programme selection

The focus of this section is on the identification of the interventions that are likely to be effective and acceptable within New Zealand for the treatment of 3-7 year-old children with conduct problems.

2.1 Identification and classification of promising programmes

To identify promising programmes for this report the following process was used:

- Programme identification - on the basis of existing reviews (Brestan & Eyberg 1998; Church 2003; Hahn et al 2007; McCart, Priester, Davies & Azen 2006; Mihalic, Fagan, Irwin, Ballard & Elliot 2002; Scott 2008; Weisz, Hawley & Doss 2004) of the evidence on the treatment and management of conduct problems in young children, the committee identified an initial portfolio of promising programmes. For inclusion in this listing, any general programme approach had to be supported by evidence from at least two randomised controlled trials. These programmes included parent management training, teacher management training and multidimensional treatment foster care.

- Programme assessment - for each class of programme, summaries of the evidence of programme efficacy were prepared for the committee by Dr J Church and Associate Professor K Liberty. These summaries are shown in Appendix 1 to this document.

- On the basis of the available review material and the information in Appendix 1, the AGCP then identified effective programmes and devised the system of programme classification described below.

2.2 A proposed classification of intervention options

To organise the evidence on effective interventions the AGCP proposes the use of the classificatory scheme shown in Table 1. This scheme classifies interventions first by the setting in which the intervention is delivered (home or school) and then by the intensity of the intervention. Tier 1 interventions are universal interventions which are delivered to all children (or families or classrooms) in a defined population.

Tier 2 interventions are interventions targeted at children with clinically significant levels of conduct problems. A defining feature of Tier 2 interventions is that these interventions represent the treatment programmes that would normally be the first treatment programme offered to children with significant conduct problems. Finally, Tier 3 programmes are more extensive and intensive interventions that are targeted at children who have failed to benefit from a Tier 2 programme.

The provision of Tier 3 programmes becomes necessary in several different situations. For example, the child’s conduct problems may be so severe that more intensive treatment is needed or the child’s behaviour may have failed to improve even though the Tier 2 programme was delivered as intended, or engagement by parents or teachers with the Tier 2 programmes may have been poor and this lack of engagements suggests that a more intensive and individualised programme is indicated.
Tier 2 and 3 programmes may be delivered in home and school settings by various professionally-trained agents including parents, teachers and clinicians.

The committee was of the view that to provide an effective system for managing conduct problems in 3-7 year-olds it would be necessary to develop a portfolio of interventions that spanned the home and school and which ranged from universally-delivered Tier 1 programmes to intensive Tier 3 programmes.

2.3 Description of promising programmes

On the basis of the review process described in 2.1 the following programmes were identified as likely to be effective approaches for preventing, treating or managing conduct problems in 3-7 year-olds:

• Parent management training programmes: These programmes provide parents with training in methods and strategies for managing child behaviour and preventing the further development of anti-social behaviours in children. These programmes all derive from the basic social learning theory of the development of anti-social behaviour developed by Patterson and his colleagues at the Oregon Social Learning Centre (OSLC) (Dishion & Patterson 1996; Patterson, Chamberlain & Reid 1982; Reid & Eddy 2002). Programmes based on this approach aim to teach parents a range of skills for the management of child behaviour problems and the teaching of alternative socially acceptable ways of responding to social demands. These parenting skills include limit setting, modelling of pro-social behaviour, incidental teaching of social skills, monitoring, changing attention from child misbehaviour to desired behaviour, systematic reinforcement of desired behaviour, the use of effective non-violent penalties for anti-social responses, positive involvement in family life and family problem solving. There are now a number of variants of this approach developed by a number of providers. These providers include:

- parent management training (Oregon) (PMTO) - The Oregon Social Learning Centre (Dishion & Patterson 1996; Patterson 1976) was the original site at which parent management training was developed and over the years has developed a comprehensive suite of parent management training programmes that range from a basic parent management model (PMTO) to more intensive interventions and interventions designed for various target populations. An account of the range of parent management training programmes provided by OSLC is given in Appendix 1.1.

- the Incredible Years programmes - these programmes have been developed by Webster-Stratton and her colleagues (RAND Corporation 2006; Webster-Stratton 1986) and like the OSLC programmes provide a range of parent management training options that range from basic level parent training to more intensive options (see Appendix 1.2).

- the Triple P programmes - the Triple P positive parenting programmes were developed in Australia at the University of Queensland by Sanders and his colleagues (Sanders 1999; Sanders Markie-Dadds, Tully & Bor 2000; Sanders, Turner & Markie-Dadds 2002). The Triple P suite of programmes provides a range of programmes from Triple P level 1 to Triple P level 5. Triple P level 1 provides a universal population-based programme whereas Triple P level 4 and 5 programmes are targeted at children with significant conduct problems. Like the PMTO and
Incredible Years programmes a number of variants of Triple P have been developed to meet the needs of specific populations (see Appendix 1.3).

- Parent Child Interaction Therapy (PCIT) - this model of parent training was developed by Forehand and McMahon and further developed by Eyberg and her colleagues (Brestan & Eyberg 1998; Forehand & McMahon 1981; Forehand, Wells & Griest 1980; Schuhmann, Foote, Eyberg, Boggs & Algina 1998). PCIT use a one-to-one parent training model in which the therapist provides direct coaching to parents using structured play sessions, a one way mirror and “bug in the ear” technology (see Appendix 1.4).

- Teacher management training: Parallel to the development of parent management training programmes, research and development has also occurred with respect to the development of teacher management training programmes. These programmes provide teacher professional development in the use of a set of child management and teaching techniques similar to those taught to parents in the parent training programmes but adapted for school and classroom use. Three teacher management programmes have been demonstrated to be effective in reducing the incidence of conduct problems:

  - School-wide Positive Behaviour Support - this whole school intervention began as Project PREPARE, underwent further development as Effective Behaviour Support (Colvin, Kameenui, & Sugai 1993), and is now being taken to scale as School-wide Positive Behaviour Support (SWPBS) (Blonigen et al 2008; Horner & Sugai 2002). This school-wide programme was developed from the observation that, in order to identify and treat children with conduct problems in the school setting, it is first necessary to ensure that the school is operating a well-managed and effective school-wide behaviour management scheme (Horner & Sugai, 2002). Otherwise, the children with entrenched conduct problems cannot be identified above the “noise” created by the many other children who are engaging in frequent misbehaviour. SWPBS involves the implementation of a comprehensive school-wide behaviour management plan that includes a mission statement, buy-in by all teachers, positively-stated behavioural rules, procedures for teaching these expectations to students, strategies for rewarding students who meet these expectations, strategies for discouraging rule violations and systemic monitoring and record-keeping to assess programme effectiveness (Horner & Sugai 2002) (see Appendix 1.5).

  - First Step to Success - initial development of this programme was undertaken by Walker and Hops in the 1970s (Walker, Hops & Greenwood 1981) and the programme further developed by Walker, Severson, Feil and others at University of Oregon College of Education in the 1990s (Walker et al 1998). First Step to Success is an early intervention programme for 5-8 year-old children which consists of three components - a screening procedure, a classroom intervention called CLASS, and a parent/home support system called HomeBase. The CLASS programme is introduced by a consultant such as a RTLB who models the classroom programme for a week or so and then gradually passes control to the classroom teacher. During the CLASS programme, the child with conduct problems is taught alternative pro-social responses, cued with green and red cue cards, given points for responding appropriately and, if a daily goal is met, given the opportunity to choose a rewarding activity that the entire class can enjoy (Walker et al 1998) (see Appendix 1.6).
- the Incredible Years teacher training programme - the Incredible Years programmes include a behaviour management training programme for teachers (RAND Corporation 2006). The Incredible Years teacher classroom management programme is delivered by a trained consultant to groups of teachers in seminar format. The programme consists of five modules which cover how to use teacher attention and praise effectively, the use of incentives to motivate behaviour change, how to prevent behaviour problems, how to decrease inappropriate behaviour using redirection, ignoring, time out, logical consequences, removal of privileges and how to build positive relationships with students. Each module is supported by video examples (RAND Corporation 2006) (see Appendix 1.2).

- Multidimensional treatment foster care (MTFC): In a number of cases child behaviour problems will be associated with home conditions that require removal of the child from the home and placement in foster care. The child outcomes of traditional forms of foster care have not been highly positive. MTFC is a programme developed by the Oregon Social Learning Centre to address the needs of children with problem behaviours who have been removed from their home environment (Church 2003; Hahn et al 2004). MTFC is a form of foster care in which children are placed with highly-trained and supervised parents who implement a structured and individualised programme for each child. Placements are for between six and nine months. While MTFC was originally developed to meet the needs of adolescents with severe conduct problems, the approach has been used successfully with 3-7 year-old children (Church 2003; Hahn et al 2004) (see Appendix 1.7).

2.4 The proposed programme portfolio

2.4.1 All of the programmes above share the common features that they are theoretically well-founded and supported by evidence from several well-controlled evaluations. This listing formed the basis of the AGCP deliberations about a portfolio of intervention for 3-7 year-olds in New Zealand.

The recommended portfolio of interventions is shown in Table 1. As explained earlier, interventions in this table are classified by the setting within which the intervention is delivered and the intensity of intervention. A commentary on the programmes selected and the reasons for programme selection is given below:

Tier 1 programmes are programmes targeted at all children. These programmes may be delivered at home or school by a number of agents including parents, teachers, the school system and the media. While these programmes are not explicitly targeted at the management of children with severe conduct problems, they may make an important contribution to the prevention and treatment of these problems. In particular, universal programmes may have the advantages of changing the context within which childhood behaviours are viewed, supporting parents and teachers who are facing difficulties due to childhood conduct problems and increasing the number of parents and teachers who are willing to seek help in dealing with childhood conduct problems (Blonigen et al 2008; Horner & Sugai 2002; Sanders 1999; Sanders, Markie-Dadds, Tully & Bor 2000; Sanders, Turner & Markie-Dadds 2002) (RAND Corporation 2006). For these reasons, the AGCP was of the view that an effective portfolio of programmes should contain universal programmes delivered through parents and the education system.
2.4.2 On the basis of the AGCP review of evidence, the most effective universal programme for parents is provided by the universal Triple P (level 1) programme. This strategy uses a media and communication-based approach to promote positive parenting practices, to encourage parents to seek help and to de-stigmatise treatment seeking. This programme has been shown to be associated with a reduction in anti-social behaviours in children in a number of evaluations (Bor, Sanders, & Markie-Dadds 2002; Sanders 1999; Sanders, Markie-Dadds, Tully & Bor 2000; Sanders, Turner & Markie-Dadds 2002). While no randomised trials of Triple P level 1 have been reported, the AGCP was of the view that this programme was by far the most promising universal programme for parents.

2.4.3 In terms of the school setting two universal programmes were identified with these programmes being distinguished by the mechanism by which the intervention was delivered. The first programme was School-wide Positive Behaviour Support (SWPBS), which has been shown to be effective in reducing the incidence of problem behaviours in the school setting in several randomised trials (e.g. Lassen, Steele & Sailor 2006; Luiselli, Putnam, Handler & Feinberg 2005; Stormont, Covington-Smith & Lewis 2007). There is thus adequate evidence of the efficacy of SWPBS as a universal school-based programme. The second programme was the Incredible Years teacher classroom management (TCM) programme. Although the evidence that this programme produces significant reductions in the level of problem behaviours in the school setting is weaker than that for SWPBS, the evidence is nevertheless sufficient for inclusion of this programme in the portfolio of Tier 1 programmes (Raver et al 2008).

2.4.4 While the universal Tier 1 programmes provide an important context for the development of interventions in the home and school setting, these programmes do not specifically address the needs of children who are referred to Group Special Education (GSE), Child and Adolescent Mental Health Services (CAMHS) and Child, Youth and Family with severe behaviour problems. To address the needs for clinical level intervention, two further tiers of interventions are proposed. The recommended Tier 2 parent management and teacher management training programmes are the interventions that would normally be the first treatment programme offered to children with significant conduct problems. The committee recommended three parent management training programmes. These programmes were:

- the standard PMTO programme (Dishion & Patterson 1996; Patterson 1976)
- the Incredible Years basic programme (pre-school and school versions) (RAND Corporation 2006; Reid, Webster-Stratton & Baydar 2004)
- the Triple P level 4 parent management training programme (Sanders 1999; Sanders, Turner & Markie-Dadds 2002).

For all three programmes there was evidence of programme efficacy from multiple randomised trials across a range of sites and social groups (see Appendix for details). The committee noted that different programmes had different strengths. In particular, the evidence in favour of PMTO was stronger than for the other two programmes - Triple P had the advantage of being developed in an Australasian context and there were some preliminary demonstrations that Incredible Years was proving effective in the New Zealand setting (Fergusson, Stanley & Horwood 2009). For these reasons the AGCP considered all three programmes as effective, well-validated programmes that are suitable for trialling in New Zealand.
2.4.5 The committee considered a number of Tier 2 interventions which were being used in the school setting but was able to find only one where the evidence of efficacy was sufficient to warrant recommendation. This was the First Step to Success programme (Walker et al 1998). Although not solely a school-based programme (because of the home-base component) it met the requirements of a school-based programme in that the intervention is initiated in the classroom and most of the teaching of new skills is classroom-based rather than home-based (Golly, Stiller & Walker 1998; Walker et al 1998). The CLASS component of First Step to Success also had the advantage that it could be readily introduced by RTLB and could, therefore, be introduced using existing personnel.

2.4.6 Five interventions were identified as potential Tier 3 programmes. All but one were home-based. Two of these programmes (Incredible Years advanced and Triple P level 5) are more intensive versions of their corresponding Tier 2 programmes. In addition to these, Parent Child Interaction Therapy (Brestan & Eyberg 1998; Forehand & McMahon 1981; Forehand, Wells & Griest 1980; Schuhmann, Foote, Eyberg, Boggs & Algina 1998) was recommended as an approach that provided individualised training to parents who are unwilling to join a group or who need more intensive and individualised support (see Appendix 1.4). All of these programmes have efficacy evidence from a number of randomised trials with a variety of different kinds of parents (Bor, Sanders & Markie-Dadds 2002; Schuhmann, Foote, Eyberg, Boggs & Algina 1998; Webster-Stratton 1994). The fourth Tier 3 programme was multiple treatment foster care (MTFC). This intervention was included in the portfolio to meet the needs of 3-7 year-old children with severe behaviour problems who have been removed from their home environment because of care and protection issues.

The search for a Tier 3 school-based programme identified only one possible intervention and it was supported by only a single randomised trial (Walker, Hops & Greenwood 1981). This was Reprogramming Environmental Contingencies for Effective Social Skills (RECESS). RECESS was developed by the same team that developed CLASS and operates in a similar fashion. It has been designed as a targeted intervention for aggressive and anti-social children in years 1-4 (Walker, Ramsey & Gresham 2004). It involves classroom-based training in co-operative behaviour, a response cost system in which points which have been awarded at the start of each recess are lost for negative social interaction and rule violations, high rates of praise for co-operative interactions, group activity rewards for meeting goals in the classroom and individual rewards at home for meeting classroom goals (see Appendix 1.6). It is introduced by a consultant such as an RTLB in much the same manner as the CLASS programme. Programme intensity is gradually reduced as the child’s behaviour and social skills improve.
Table 1: Proposed portfolio of evidence-based programmes for children aged 3-7 years

<table>
<thead>
<tr>
<th>Tier</th>
<th>Description</th>
<th>Parents</th>
<th>Teachers/schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Universal¹</td>
<td>Triple P (level 1)</td>
<td>School-wide Positive Behaviour Support</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Incredible Years teacher classroom management</td>
</tr>
<tr>
<td>2</td>
<td>Targeted</td>
<td>Parent management training (Oregon)</td>
<td>First Step to Success</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Triple P (level 4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incredible Years basic</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Intensive</td>
<td>Triple P (level 5)</td>
<td>RECESS</td>
</tr>
<tr>
<td></td>
<td>(For children who make little progress as a result of Tier 2 intervention)</td>
<td>Incredible Years advanced</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Parent Child Interaction Therapy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Multidimensional treatment foster care (Oregon type)</td>
<td></td>
</tr>
</tbody>
</table>

¹ Universal programmes are included where the evidence suggests that they reduce the level of conduct problems in the population. There is little evidence that these programmes reduce the number of children with serious conduct problems.

The portfolio of programmes shown in Table 1 represents the committee’s “wish list” of programmes for the effective management of childhood conduct problems by GSE, CAMHS and Child, Youth and Family. Developing, trialling and implementing this ambitious programme of interventions is likely to take more than a decade of development work.

2.5 Initial development of proposed portfolio

2.5.1 The AGCP was of the view that the logical first steps to advance the portfolio of interventions in Table 1 was to focus upon the development of a specific parent training programme and a specific teacher management programme. This approach would provide an opportunity to develop the infrastructure, skills and experience needed to implement programmes for both parents and teachers.

2.5.2 The parent management training programme selected for further development was the Incredible Years Basic Parenting Programme (IYBPP). The choice of this programme was dictated by a number of pragmatic considerations. These included:

- IYBPP is currently widely implemented in New Zealand by Group Special Education (GSE), Child and Adolescent Mental Health Services (CAMHS) and other providers
- Training resources for IYBPP are available from the Werry Centre
An initial evaluation (ref) of the outcomes of IYBPP applied to a series of 214 children and their families showed that:

- IYPBB had good effect sizes (Cohen’s d = .60-.75) when changes in children’s behaviour were assessed using pre-test/post-test comparisons based on parental report

- the programme was well-regarded by the client families

- similar findings were evident for Māori and non-Māori clients (Fergusson, Stanley & Horwood 2009).

The teacher management training programme selected was First Step to Success. There were several reasons for choosing First Step to Success as the preferred teacher management programme. First, as Church (2003) points out, the way in which the programme is delivered fits well with the current New Zealand education system and, in particular, it is a programme well-suited for delivery by RTLB. At the present time the efficacy data on First Step to Success (including the CLASS evaluations) is stronger than the evidence for Incredible Years teacher classroom management but this may change as those who are using the Incredible Years training package begin to measure its effects on the behaviour of children with conduct problems in the classroom.

The First Step programme will need to be rewritten to make it suitable for the New Zealand setting but this should not be a problem given that it consists largely of interventions which are already being used by teachers who are working effectively with children with conduct problems. The New Zealand version will need to be piloted to ensure that it is acceptable to New Zealand teachers but this will be necessary with any interventions selected for use in New Zealand schools.

The next section of the report considers the key issues in the development of these programmes.
Part 3: Implementing and evaluating selected parent and teacher management training programmes

3.1 Implementing the Incredible Years Basic Parenting Programme

This section outlines a research design and proposal for an evaluation of the efficacy for IYBPP in New Zealand. The purpose of this first stage efficacy trial is to ensure that the promising findings for IYBPP found in other societies can be replicated in a New Zealand context. The AGCP was of the view that this first-stage efficacy testing was essential before time, effort and funding were expended on rolling out the programme on a population basis. This section considers a series of issues that include:

- Selecting development sites
- Setting up pilot programmes to ensure programme fidelity and appropriate implementation
- Randomised controlled trials to examine the efficacy of programmes under well-controlled conditions
- Longer term follow-up of the outcomes of those provided with intervention.

It is emphasised that the basic plan set out in this report is intended to lay the foundations for a more detailed implementation plan to be developed once funding has been secured. For this reason, all of the proposals made should be seen as tentative and should not be treated as providing a definitive statement of the final form of the proposed implementation and evaluation. Furthermore, the AGCP was of the view that the report should avoid being overly prescriptive about technical details of research design including the selection of clients and the assessment of outcomes. It was believed that these matters needed to be assessed in the context of a specific research design and the resources available to implement that design.

3.1.1 Selecting sites for evaluating IYBPP

A critical feature in the early implementation of any intervention is that this intervention is developed at a site that is supportive of the intervention. The evaluation literature contains a number of examples of circumstances in which a well-intentioned intervention has been imposed on reluctant providers with the inevitable result that the intervention has failed (Mihalic, Fagan, Irwin, Ballard & Elliot 2002). For these reasons, finding a provider site that is sympathetic to and supportive of the aims of the IYBPP is essential for an effective trialling of this programme. After due consideration of this issue, the AGCP was of the view that GSE was likely to provide the most supportive site for an implementation evaluation of IYBPP for 3-7 year-olds. There were three main reasons for this decision. First, GSE has growing experience with the implementation of IYBPP with the programme being available at a number of centres (Fergusson, Stanley & Horwood 2009). Second, an evaluation of pilot data gathered by GSE suggested that the GSE-based delivery of IYBPP is being well-accepted by clients with these outcomes applying to both Māori and non-Māori (Fergusson, Stanley & Horwood 2009). Finally, considerable enthusiasm for IYBPP has been expressed by all GSE staff who have been involved with IYBPP. This enthusiasm is important since it avoids the possible risks associated with imposing a programme on reluctant providers (Fergusson, Stanley & Horwood 2009).
3.1.2 **Pilot research**

A critical phase of the implementation evaluation of IYBPP is to conduct careful pilot research of the programme before conducting randomised trials or implementing the programme on a population basis. Pilot research may make several important contributions to the development of an effective intervention (van Teijlingen & Hundley 2001). The pilot period provides opportunities for:

- providers to become familiar with and adept at the delivery of the intervention
- researchers to develop robust procedures for monitoring fidelity of the programme delivery
- evaluation of the adequacy of client recruitment, assessment, engagement and satisfaction with the programme
- examination of the cultural appropriateness of programme content and delivery
- in-depth examination of the process of programme delivery
- preliminary estimates of programme efficacy using pre-test/post-test and single subject designs.

To conduct pilot studies of IYBPP it is proposed that these studies should take place at three sites selected by GSE as being suitable to begin the development of IYBPP. It is suggested that two of these sites should be located in the North Island and one in the South Island with 50 clients per site being studied. Sites should be selected so that at least one third of all clients are Māori.

It is anticipated that the pilot phase of the implementation process will take between 12-18 months and that by the end of this period adequate data will be available on cultural appropriateness, client engagement and acceptance, the fidelity of programme delivery, provider satisfaction and likely programme efficacy.

3.1.3 **Proposed randomised trial using a wait list design**

Under suitable circumstances the best way of evaluating IYBPP would be through a two-group randomised design in which one group of families received IYBPP and another control series received the treatment usually provided by GSE, with both groups being followed for at least a year to determine whether the outcomes of families receiving IYBPP differ from those receiving treatment as usual. This research design can be justified ethically in circumstances in which there is no compelling evidence about which of the treatments (IYBPP, treatment as usual) is the more effective (Freedman 1987). However, this situation of “equipoise” does not exist in the case of IYBPP as there is extensive international evidence to suggest that IYBPP produces better outcomes than existing interventions (RAND Corporation 2006). Under these circumstances a design in which one group of families is provided with IYBPP and the other group denied access to this programme is not ethically defensible (Freedman 1987).

After due consideration of this issue, the committee was of the view that the most ethically defensible and informative research design was a wait list control design which had the following features:

- At the point of referral, families are assigned at random to one of two groups. Parents in the first group, group one (G1), are provided with IYBPP immediately after referral.
Parents in the second group, group two (G2), have a delayed introduction to IYBPP that follows, on average, three months after the provision of IYBPP to G1.

- Both groups are assessed at base line (T1), at the end of the G1 treatment period (T2), at the end of the G2 treatment period (T3) and at regular six-monthly intervals after the provision of service (T4….. Tn). This evaluation design is shown in Figure 1.
This design provides the following information about programme efficacy:

- The comparisons of G1 and G2 measures at T2 provide a conventional randomised controlled trial estimate of treatment effectiveness at the end of training. In addition, comparisons of the outcomes of G1 over the interval T1 to T2 provide a pre-test/post-test measure of implementation fidelity and programme effectiveness as does the comparison of the outcomes of G2 at T2 and T3.

- By time T3, both groups have received the treatment and at this point the research design ceases being a randomised trial and becomes a longitudinal study of the outcomes of groups of families who have been provided with training. This component of the study can be used to examine the longer-term prognosis of the effect of parent training on the anti-social development of the children. If parent training is effective in reducing conduct problems in the longer term, then rates of recurrence of conduct problems in the treated families during the follow-up period will be much reduced. If, however, the treatment does not have long-term efficacy there will be considerable recurrence and a need for further intervention.

A further issue that needs to be addressed concerns the further treatment and management of children whose parents do not engage in group-based parent management training or whose behaviour does not improve following parent management training. The families of these children will need to be provided with an appropriate Tier 3 intervention.

It is anticipated that to obtain estimates of the short-term effectiveness of Tier 2 interventions, rates of conduct problems will require a trial period of about one year. To obtain estimates of the long-term effects of these interventions will require a two to three-year trial period.
The results of the implementation and evaluation process may be used to inform the Government about the extent to which programmes such as Incredible Years parent management training can be implemented as an effective intervention programme for young children who are at risk of developing serious conduct problems.

3.2 Implementing and evaluating First Step to Success

While the Incredible Years parent training programme will be useful for children who have significant conduct problems at home, this programme on its own may not be sufficient to meet the needs of children who engage in elevated rates of anti-social behaviour both at home and at school.

The parallel evaluation of interventions which teachers can use is important because the provision of home plus school intervention programmes is more likely to bring about permanent reductions in anti-social behaviour than home interventions alone - especially for children with early onset conduct problems (Church 2003).

As was the case for the development of parent management training, the development of teacher management training involves a number of key tasks that include selecting development sites, conducting pilot research and establishing programme efficacy. However, apart from the Early Social Learning Project and Project Early (Church 1999; Ewing & Ruth 1997), there has been limited use of First Step to Success-type interventions in New Zealand with the result that the introduction, implementation and evaluation of First Step to Success will require some preliminary re-design and piloting work before the randomised group evaluations.

3.2.1 Selecting sites for programme development

As noted previously, the strength of First Step to Success is that the programme is well-suited for delivery by RTLB. However, it is important that the delivery of First Step to Success not be limited to primary schools. Further development work is required to produce a version of First Step to Success which can also be used by early childhood teachers in early childhood centres. In other words, delivery of First Step to Success must be extended downwards to include delivery by GSE early intervention staff as well as by RTLB. It is also important that the initial evaluations of First Step to Success be undertaken in sites which have not yet introduced the Incredible Years parenting programme so that the effects of introducing the First Step to Success programme are not contaminated by the effects of introducing the parenting training programme.

3.2.2 Initial redevelopment of First Step to Success for New Zealand

Since First Step to Success has not been widely implemented in New Zealand, it is important that adequate redevelopment work and pilot evaluations are undertaken to ensure that a culturally-appropriate version of the intervention is development which is well-accepted by RTLB and early intervention staff. This implies that the first stage of the New Zealand development and implementation of First Step to Success will require an in-depth study of the delivery of the programme to ensure that it is working in the way expected. Such a pilot could be conducted using a relatively small sample of RTLB and early intervention staff (15-20) that are each studied in their management of five to six children with conduct problems in early childhood centres and year 1-3 classrooms. A well-conducted pilot study of this type will provide rich data on the potential of First Step to Success as a centre and classroom-based intervention for children with emerging conduct problems.
3.2.3 A wait list randomised trial

The process of introducing a New Zealand version of First Step to Success as an intervention for the management of conduct problems in the New Zealand education system provides an ideal opportunity for conducting an evaluation of the efficacy of the programme using a wait list randomised trial similar to that developed for parent management training. There are, however, important differences in the way that the two interventions are delivered. Classroom interventions such as First Step to Success are delivered by RTLB and early intervention staff who work with groups of schools and early childhood centres. This means that the evaluation design needs to be a cluster randomised design in which a series of about 50 RTLB and early intervention staff are randomly assigned to training in the New Zealand version of First Step to Success with the timing of this training varying by about three months and with data being collected using the experimental design shown in Figure 1.

Under this design the first group of RTLB and early intervention workers trained would be the experimental group and the second group the wait list control group. The design is clustered because each RTLB and early intervention worker will be providing the First Step to Success programme via the class and centre teachers in their catchment area to multiple children.

The results of this development and evaluation process should provide the Government with adequate information about the acceptability, feasibility and effectiveness of the New Zealand version of First Step to Success as a school and centre-based intervention programme introduced by RTLB and early intervention staff and delivered by teachers for 3-7 year-old children with significant conduct problems.
Part 4: Key issues in the implementation of parent management training and teacher management training interventions for children with early onset conduct problems

4.1 Introduction

The previous section developed a rationale for implementing and evaluating the Incredible Years parent management training and the First Step to Success teacher management training programmes as a means of providing services to parents and teachers faced with the management of children with early onset conduct problems.

This section examines some of the key issues relating to the conduct of the proposed implementation. All of these issues centre around ensuring that the proposed interventions are delivered effectively and in the manner intended. This is known as implementation fidelity and refers to how well a programme is implemented when compared with the original programme design (Centre for Substance Abuse Prevention 2001; Mihalic, Fagan, Irwin, Ballard & Elliot 2002; O'Donnell 2008). Until recently, little attention has been paid to the issue of programme fidelity and it has often been assumed that the implementation of some programme components is better than nothing.

This is not necessarily the case because poorly implemented programmes may end up being ineffective and, hence, a waste of money. They may also earn a reputation which discourages implementation staff and drives away families who could have benefited from a programme delivered with fidelity. This is discouraging for both staff and client families (Mihalic, Fagan, Irwin, Ballard & Elliot 2002).

4.2 The definition and assessment of implementation fidelity

4.2.1 Recent reviews of the implementation of programmes in the areas of violence prevention and parent management training (Mihalic, Fagan, Irwin, Ballard & Elliot 2002; O'Donnell 2008) have concluded that four key components of programme delivery and implementation needed to be well-managed and monitored to ensure effective delivery of intervention programmes. These components are:

- Adherence - this refers to whether the programme is being delivered as it was designed.

- Exposure - this refers to the extent to which the client population is exposed to the programme as designed in terms of the number of sessions attended, session length and the frequency with which programme techniques are implemented.

- Programme delivery - this refers to the adequacy of the delivery of the programme by the staff implementing the programme.

- Participant responsiveness - this refers to the extent to which the programme succeeds in engaging clients (parents, teachers and children) in the activities of the programme.

4.2.2 The appropriate method for assessing programme fidelity is known as process evaluation (Scheirer 1994). Process evaluation involves describing what services are provided to whom, the intensity and duration of the services and the problems encountered in programme delivery (Rossi, Lipsey & Freeman 2004). To conduct an effective process...
evaluation requires the development of careful documentation of the ways the intervention is being delivered at all points of the process, from client recruitment to the completion of the programme. In terms of the recommendations made in the previous section it is important that both the proposed pilot studies and randomised trials include process evaluations. In the context of the research design these evaluations may serve different functions. The process evaluations during the pilot phase of the studies will describe how well the programme providers are delivering the interventions (Rossi, Lipsey & Freeman 2004). This information can be used to strengthen staff training, delivery and practice processes before the wait list trials.

The process evaluation during the larger wait list evaluations can be used to assess how well the interventions were applied under trial conditions. This information may be particularly important in situations where the trial results show that an intervention has failed to live up to expectations. One of the first explanations that needs to be considered in these circumstances relates to the extent to which inadequacies of programme delivery may explain the absence of expected programme effects (Dane & Schneider 1998; Mihalic, Fagan, Irwin, Ballard & Elliot 2002).

4.3 Factors influencing programme fidelity

The factors influencing the overall fidelity of the delivery of an intervention programme include organisational factors, staff factors, programme factors, client factors and cultural/community factors (Mihalic, Fagan, Irwin, Ballard & Elliot 2002). Each of these factors is discussed below.

4.3.1 Organisational factors

Organisational features have been identified as the most commonly-documented factors determining implementation success (Mihalic, Fagan, Irwin, Ballard & Elliot 2002). Such features as the nature, structure, history, philosophical traditions, economic standing and stability of the organisation providing services have all been found to have considerable bearing on the extent to which treatment adherence is achieved by the staff delivering the intervention programme. The following organisational features have been suggested as encouraging effective programme implementation:

- clear leadership
- effective administrative support for the programme
- clear lines of authority
- efficient and timely decision-making processes
- clear lines of communication
- low rates of staff turnover
- agreement of staff on the validity of the programme approach
- must include funding for the package of factors that enhance engagement from hard-to-reach families such as childcare, transport, initial home visits and meals/snacks.
Organisations that have most or all of these features are likely to be successful in implementing new interventions whereas a lack of these features is likely to be a barrier to successful implementation.

A clear challenge in any New Zealand-wide implementation of parent management training programmes such as Incredible Years and teacher training programmes such as First Step to Success is that of ensuring the selected sites have an adequate infrastructure for implementing these programmes.

4.3.2 **Staff-related factors**
The skills, attitudes and values of staff delivering a programme play a critical role in the effective implementation of intervention programmes (Mihalic, Fagan, Irwin, Ballard & Elliot 2002). These considerations imply that the development of successful programmes requires organisational structures and processes that support staff in the implementation of the intervention. Studies of large-scale implementations of parent management training programmes suggest that the key staff-related factors needed to ensure successful implementation include:

- selection of staff with appropriate skills and credentials
- adequate staff training and technical support in programme implementation
- ensuring that time spent on delivering the new programme is not added to existing duties but replaces existing duties
- regular audit of staff skills and competencies
- adequate recognition for programme adherence
- an organisational environment that is supportive of staff involvement in the intervention.

These requirements have obvious relevance to the implementation of both IYBPP and First Step to Success. Selecting the right staff to deliver the programme, training them in the right way, ensuring regular review of skills and competencies and ensuring adequate recognition and organisational support are likely to be key elements of the successful implementation. Achievement of these goals will almost certainly require the training and monitoring of permanent programme supervisors within GSE, CAMHS and Child, Youth and Family.

4.3.3 **Client-related factors**
While organisational factors and staffing factors play a critical role in successful programme implementation, probably the most important feature governing programme effectiveness concerns participant responsiveness to the programme (Mihalic, Fagan, Irwin, Ballard & Elliot 2002). This is of particular importance in delivering interventions to parents of children with conduct problems. It has been well-documented that many of the parents of children with conduct problems face multiple personal, social and economic challenges (Reid, Webster-Stratton & Baydar 2004; Webster-Stratton 1998; Webster-Stratton & Hammond 1998).

In addition, conduct problems may co-occur with other factors such as child abuse and neglect (Fergusson, Horwood & Ridder 2005; Hill 2002; Webster-Stratton 1998). This constellation of
parental factors and co-occurring difficulties makes some of the parents of children with conduct problems both difficult to reach and difficult to engage (Reid, Webster-Stratton & Baydar 2004; Webster-Stratton 1998). For example high rates of drop-out by families who are difficult to engage reduces the effectiveness of the training programmes.

However, more generally, failure to engage with hard-to-reach families may mean that interventions are delivered predominantly to children from relatively advantaged families, leading to a bias in service delivery in which those children and families in most need of support are those least likely to receive this support (Kazdin 1996). For these reasons the development of systems to encourage family participation in interventions is critical for the development of fair and socially equitable systems of service delivery (Dane & Schneider 1998; Mihalic, Fagan, Irwin, Ballard & Elliot 2002).

Some of the key features which encourage participation in parenting programmes include:

- recognition of the factors that may influence parental perceptions of their need for assistance and the value of interventions
- the provision of incentive and supports to encourage programme participation. This includes such things as providing the training in a convenient location, providing training at a convenient time, providing childcare and providing transport where required
- recognition of the multiple needs of hard-to-reach families
- flexibility in the way services are delivered
- investment in staff training about the importance of maintaining the involvement of hard-to-reach families and techniques for achieving this.

Obviously there is a clear need to develop systems, structures and processes that encourage the participation of hard-to-reach families at all stages of the implementation. An important indicator of programme success will be the extent to which rates of programme acceptance and programme involvement are related to key features of the family including the extent of family difficulties and the presence of child maltreatment.

In terms of the implementation of the New Zealand version of First Step to Success, the key issues of teacher engagement will centre around the extent to which the RTLB and early intervention staff who are delivering the programme are able to engage with class teachers and persuade teachers to change the way in which they respond to anti-social behaviour in the classroom. There have been many demonstration experiments in which teachers have been trained how to respond to disruptive behaviour and anti-social behaviour in the classroom in ways that have resulted in permanent changes in the behaviour and the attitudes of children with conduct problems (Church 2003; Church 1999; Meyer & Evans 2006).

While both the theoretical knowledge and the practical skills which teachers need in order to effectively manage conduct problems in the classroom have been known for some time, this knowledge is only slowly crossing the research-to-practice barrier. There are several reasons for this:

- The Graduating Teacher Standards gazetted by the New Zealand Teachers Council do not require beginning teachers to have an understanding of the causes of anti-social behaviour and do not require beginning teachers to have a demonstrated ability to manage and treat
anti-social behaviour in the classroom or to teach missing social skills to children with conduct problems (New Zealand Teachers Council 2008).

- Lack of trained teacher educators. There are very few teacher educators who could provide teacher management training at the pre-service level, even if it was required. Teacher educators are mostly recruited from the teaching profession and, like all educators, can only teach what they know.

- The nature of teachers’ work. The nature of teachers’ work is a third impediment to change. The most effective interventions for children with conduct problems involve individualised behaviour support plans. In the classroom, however, most teaching work is work with the entire class. Individualised programming is almost impossible in a classroom containing 25-30 children.

- The size of the task. In order to reduce the prevalence of children with conduct problems, it will be necessary to reach the teachers of all 3-7 year-old children with professional development programmes which are sufficiently well-designed to make a difference to the way in which the teacher responds to disruptive and non-compliant behaviour (Scott 2008).

### 4.3.4 Cultural factors

As stated in the previous report, the effectiveness and acceptability of a programme may be influenced by cultural factors with the result that programmes that work in one cultural context may be less successful in others. While the weight of the evidence suggests that interventions in the area of conduct problems have been effective in a variety of cultural contexts (Yasui & Dishion 2007), to ensure full success of these programme it is important that investments are made to ensure the cultural appropriateness of programmes. Key features of this process include:

- consultation with key cultural groups

- inspection of programme context to determine cultural appropriateness

- client satisfaction surveys

- statistical comparison of rates of participation, drop-out, programme completeness and programme outcomes for different cultural groups.

A more detailed discussion of these issues from Māori, Pacific and Asian perspectives is given in section 6 of this report.
Part 5: Further development of New Zealand-wide interventions for young children with serious conduct problems

5.1 Introduction

In the preceding sections the AGCP has identified and justified the selection of two interventions for which could be provided in New Zealand for the treatment of young children with conduct problems and young children who are at risk of developing conduct problems. The AGCP has also identified some of the issues and difficulties which it will have to overcome if these treatments are to be made available to all parents and teachers of young children with conduct problems across the whole of New Zealand.

This section identifies a number of additional issues relating to the development of a comprehensive system for managing and treating conduct problems in the 3-7 year-old age group. These issues include:

• the development and implementation of universal (Tier 1) programmes

• the development and implementation of intensive (Tier 3) programmes for children with severe conduct problems

• problems which arise when a country such as New Zealand decides to take interventions to scale

• organisational structures which will be required in order to implement and evaluate the new programmes and policies.

5.2 Developing universal programmes

While targeted programmes play an important role in the treatment of children with conduct problems it is important that these programmes are supplemented by universal level programmes that provide support and a context for more targeted interventions.

There are effectively three populations at which universal interventions may be targeted - parents, teachers and schools/pre-schools. Interventions suitable for each of these target populations are discussed below.

5.2.1 Parents

Without doubt, the most comprehensive universal approach to improving parenting skills is the Every Family initiative developed by Sanders et al (2008). This programme uses a co-ordinated media and community education campaign involving social marketing and health promotion strategies to promote the use of positive parenting practices, increase parental receptivity to participating in child/family interventions and de-stigmatise and normalise help-seeking by the parents of children with behavioural and emotional problems. These universal components are supplemented by more targeted community-based approaches that included parent seminars and newsletters.

Comparison of a community treated with this approach (Brisbane) against a control community (Sydney) revealed significant reductions in reported childhood behaviour problems in the treated community (Sanders et al 2008). The lessons learned from the Every Family
intervention could be readily adapted to a New Zealand context to facilitate parental use and acceptance of interventions targeted at the treatment of conduct problems in 3-7 year-olds.

However, before such programmes are introduced it will be necessary to develop an infrastructure of services to provide adequate and accessible interventions for the parents of children with conduct problems. Otherwise implementing universal programmes may lead to expectations that appropriate treatments are available for children with conduct problems. If such services are not readily available this may reduce the acceptability and effectiveness of the universal programme.

5.2.2 School and early childhood teachers

Improved teacher education programmes are the obvious universal intervention for teachers. School is the only institution that children are required to attend. This makes teachers the professionals who are best-placed to identify and treat young children who are at risk of anti-social development. Despite the strategic role of teachers in identifying, managing and treating conduct problems there is no requirement in the Graduating Teachers Standards (New Zealand Teachers Council 2008) for graduating teachers to have an understanding of the causes, identification procedures, management or treatment of conduct problems in children. It was the view of the AGCP that this lack of universal training for classroom teachers was a significant gap in the infrastructure for managing conduct problems. The advisory group noted that the widespread dissemination of teacher management training will involve the concurrent introduction of changes on a number of fronts including:

- Changing the Graduating Teacher Standards. The first step in improving the education of children with conduct problems will be to write some of the key competencies for this work into the Graduating Teacher Standards, so that they make some reference to the need for graduating teachers to demonstrate an understanding of the causes of conduct problems in the classroom and to demonstrate some competence in managing disruptive and anti-social behaviour in the school and the playground.

- The production of professional development resources. To disseminate new knowledge to large numbers of teachers and advisors, the first task to be accomplished will be to prepare the training booklets, the DVDs and the instructional programmes which will be required. Development of training resources can proceed rapidly because most of the research and the implementation work has been completed already. In particular, there is quite extensive New Zealand and international evidence on methods of identifying children with conduct problems that are symptomatic of antisocial development (Church 2003; Scott 2007) and the methods for effectively treating and managing these problems (Church 2003; Scott 2008).

- Adding evidence-based practice to pre-service teacher education. One of the major tasks to be accomplished is that of ensuring that every pre-service teacher has access to a course in the causes of anti-social development, the characteristics of effective interventions and the behaviour management resources which are available. New Zealand experience with courses of this type suggest that reasonable levels of mastery can be achieved with 48 hours of class contact plus supervised classroom practice. There exist many resources which can be quickly adapted for use in undergraduate level courses (eg. Centre for Effective Collaboration and Practice 1998; Church 1999; Crone & Horner 2003; Walker, Ramsey & Gresham 2004). This training will need to be included in the pre-service degree programmes of both early childhood teachers and primary teachers. Consideration could be given to using the Incredible Years teacher training programme as a basis for
introducing New Zealand teachers to the key ideas of behaviour management in the classroom context.

• Educating the teacher educators. Before mounting the required pre-service courses teacher educators need to be trained. There are various ways in which this might be accomplished. For example, each of the universities could hire or train staff to design and teach these courses. Alternatively, the Ministry of Education could contract out the preparation and delivery of six-monthly, day-long in-service courses for each of the teams of teacher educators who have been selected by their respective academic deans to provide this part of their initial teacher education programme.

• Increasing the knowledge and skill levels of resource teachers and advisors. The front line staff for the education arm of the services described in this report will be GSE personnel, early intervention staff, RTLB and special education co-ordinators in schools. GSE has made a good start on the required professional development (Victoria University of Wellington 2007) and this training now needs to be evaluated, revised where necessary, and rolled out across all advisory staff in the education sector. The training which is currently being provided for RTLB also needs to be reviewed given that RTLB is reporting a need for more extensive training in how to work effectively with children with persistent conduct problems (Denston 2006). The most urgent need is to review the training currently being provided so that the expressed needs of RTLB can be given more attention than is the case with the current course. The proposed development of a New Zealand version of First Step to Success described in sections 2 and 3 could provide the focus for such training.

• Delivering the professional development required by practising teachers. Teacher professional development figures heavily in the scores of design experiments in which children have been taught to replace high rates of anti-social and defiant behaviour with age-appropriate rates of pro-social behaviour and compliance with adult requests. There have been scores of experimental demonstrations of teachers learning how to respond appropriately to social and anti-social behaviour in the pre-school and school classroom and, as a result, learning how to stop anti-social behaviour in the school setting while at the same time accelerating the development of pro-social skills and attitudes (Church 2003; Martella, Nelson & Marchand-Martella 2002; McMahon, Wells & Kotler 2006; Stage & Quiroz 1997).

The most difficult task will be providing the necessary professional development for all practising pre-school and year 1-3 teachers. This is likely to take several years to complete. The best available model for nationwide professional development is the touring road show used during the late 1970s to introduce new reading teaching procedures to all New Zealand junior school teachers (New Zealand Department of Education 1977-1978). This in-service course shows what can be achieved when a clear goal has been identified and the requisite resources (in terms of materials, trainers and paid professional development leave) are made available.

A second way of delivering in-service professional development is by increasing the availability of training in effective school-wide discipline plans. As mentioned in section 2.1.3 above, the school-wide programme with the strongest evidence of effectiveness is the School-wide Positive Behaviour Support programme which is currently being used by hundreds of United States schools and which could be readily adapted for use in New Zealand. This school-wide programme has been shown in a number of case studies and several randomised trials to
reduce conduct problems across the entire school (eg. Lassen, Steele & Sailor 2006; Luiselli, Putnam, Handler & Feinberg 2005; Stormont, Covington-Smith & Lewis 2007).

While there are good reasons for believing that universal programmes targeted at parents, teachers and schools will make important contributions to the management of childhood conduct problems, it is important that before these programmes are introduced and adopted on a long-term basis that they are subject to thorough evaluation including:

- adequate pilot studies of any redesign work required to fit the intervention to New Zealand conditions
- programme evaluation studies which collect data on cultural acceptability, client acceptability and effectiveness in the New Zealand setting using, wherever possible, randomised trials.

5.3 Developing Tier 3 programmes

While universal interventions such as Every Family and improved pre-service teacher education and targeted interventions such as Incredible Years and First Step to Success have the potential to greatly reduce the prevalence of children with conduct problems and will provide structures and interventions that will minimise rates of childhood conduct problems, these approaches will not be effective in treating all children with severe behaviour problems.

In particular, research evidence suggests that about 20-35 per cent of the children whose parents or teachers are enrolled in basic parent management and teacher management training programmes will continue to show significant conduct problems (Church 2003). Tier 3 programmes offer the opportunity to provide further assistance to the parents and teachers of these children. As discussed in section 2, there are a number of programmes which are suitable as Tier 3 interventions. These include:

- Family-based interventions: Triple P (level 5), Incredible Years advanced, Parent Child Interaction Therapy and multidimensional treatment foster care. It is likely that there is a place for all of these approaches in the development of treatment services in New Zealand.
- School-based interventions such as RECESS (Appendix 5).

While it is possible to nominate promising Tier 3 interventions, it is important that these interventions are subject to adequate evaluation, including pilot studies, randomised trials and assessment of cultural appropriateness before they are introduced on a population-wide basis.

One approach to the implementation and evaluation of Tier 3 programmes may be to extend the wait list randomised trials of IYBPP and First Step to Success described in section 3 to include further interventions for those children who continue to show significant problems and who are in need of further treatment.

5.4 Taking interventions to scale

The preceding account sets out an agenda for the development and evaluation of comprehensive universal and targeted programmes aimed at managing and treating conduct problems in 3-7 year-olds. Further, the AGCP recommends that each component of this plan
should be subject to evaluation using pilot studies and randomised controlled trials conducted under ideal conditions.

However, following this research and development phase there will be a need to progressively take interventions to scale and to implement services, programmes and interventions on a nationwide basis. The translation of knowledge and practice from the research and development phase poses a number of problems and issues. These issues are reviewed below.

5.4.1 The role of practitioner training
A key issue in many of the interventions proposed previously is that of developing structures that are capable of providing consistent training to the practitioners who will deliver the interventions. Practitioner training may fail to be effective if it:

- conflicts with practitioner beliefs about what works
- does not give the practitioner the vocabulary and skills needed to engage successfully with a diverse clientele
- does not give the practitioner sufficient practice to master the intervention
- is not supported by the practitioner’s work environment.

In order for training to be effective it will need to meet a number of key requirements including:

- being compatible with the theoretical and cultural views of providers and practitioners
- sufficiently flexible to work in multiple settings
- sufficiently flexible to meet the needs of a full range of clients
- sufficiently straightforward to be implemented by the workforce.

These considerations suggest that, in the process of taking interventions to scale, it is important to develop practitioner training resources that are capable of sustaining the effective delivery of services by a wide range of practitioners.

5.4.2 The role of client engagement
While practitioner training makes an important contribution to ensuring the effective delivery of interventions, the key to success of many interventions, and particularly parent management training, is engagement of the client in therapeutic process. Failure to engage clients is likely to result in a number of problems, all of which will threaten programme effectiveness. These problems include programme rejection, programme drop-out, limited or inconsistent programme participation and failure to complete training tasks.

Failure to engage clients in programmes may occur for a number of reasons. These include:
• inconsistencies between programme content and client beliefs about the causes of, and appropriate responses to, childhood conduct problems
• perceived irrelevance of the programme to the client’s needs for support and assistance
• drop-out as a result of the client being unable to meet programme demands
• failure of the practitioner to establish a therapeutic alliance with the client.

A range of strategies have been found to increase client engagement with intervention programmes such as parenting management training. These include:

• effective practitioner training in strategies for working with hard-to-engage clients
• providing practical support including childcare, transport, meals etc to encourage clients to attend programme sessions
• ensuring the programme sessions are provided at times of the year and times of the week that enable clients to attend all sessions
• providing clients with support to deal with other personal and financial problems that may impede their ability to attend the programme
• ensuring that the programme is delivered in culturally-appropriate ways and by culturally competent practitioners
• providing monetary or other incentives for the completion of the programme.

5.4.3 The role of monitoring and audit
As programmes become developed and institutionalised there will be a tendency for the delivery and content of the programme to “drift” as a result of practitioners modifying the content and delivery of the programme. In turn, such programme drift may be result in reduced programme effectiveness and reduced client engagement. To prevent this drift it is important that monitoring systems are put in place to record key programme statistics, including rates of drop-out, outcomes of programme and client satisfaction. In addition, regular practitioner audit and appropriate refresher training should be undertaken to ensure fidelity of programme delivery and the continued effectiveness of programmes.

5.5 Developing an organisational structure to develop, pilot, implement and evaluate intervention programmes

5.5.1 A critical issue in the success of the proposals developed in the previous sections is that of setting up an organisational structure that is capable of developing, implementing and evaluating the proposed portfolio of interventions. Such an organisation will need to incorporate the following skills and functions:

• recognised leadership in the development, implementation and evaluation of the types of interventions recommended in this report
• capacity to design the training materials, training manuals, recording protocols, recording forms and supervisor training protocols which are needed for large-scale implementations and evaluations

• capacity to design the overall implementation and evaluation of Tier 1, 2 and 3 intervention programmes

• capacity to provide or oversee the provision of staff training for interventions

• capacity to advise providers on issues relating to the implementation of programmes

• capacity to design, conduct and report on evaluations of the intervention

• capacity to ensure that the intervention is delivered in a culturally-appropriate way.

These are complex demands and the AGCP was firmly of the view that the effective implementation of conduct problem interventions will require a “stand-alone” organisation that has the capacity to meet these demands. This organisation will also need a skilled leadership that has the capacity to address the relevant scientific aspects of implementation while at the same time having the ability to work alongside government agencies. As part of its deliberations the AGCP considered the following possibilities:

• Community-based implementation - a model commonly been used by the Government has been to let tenders for community-based providers to deliver services and to entrust the delivery and evaluation of these services to these providers. The AGCP was of the view that this model was not appropriate in this instance. The key difficulty with this approach is that there are no provider groups which currently have the capacity to meet the complex demands listed above. Furthermore, the committee was able to identify a number of examples where entrusting the development of a complex intervention to community groups has led to less than satisfactory outcomes.

• University-based implementation - there have been a number of examples of the implementation of parent management, teacher management and school-based programmes throughout the world. Many of these have been implemented by university-based organisations which have taken the lead in designing, delivering and evaluating programmes. Two notable examples of this approach have been the implementation of Incredible Years in Norway and in Wales and the implementation of Triple P in Australia (Mørch et al 2004; Sanders, Turner & Markie-Dadds 2002). In all cases the development of these programmes was based within university departments. University-based implementation has a number of advantages, including the fact the development process is led by staff familiar with the principles of programme development and evaluation. However, while universities provide good sites for programme development and evaluation, governments are reluctant to fund large R&D projects for more than two or three years at a time and universities are reluctant to build the infrastructure for large projects when there is no guarantee of long-term funding.

• Government-based implementation - an alternative to university-based provision is to develop a stand alone unit within Government, with this unit having the responsibility for the development, implementation and evaluation of conduct disorder prevention programmes. The AGCP saw both advantages and disadvantages of this approach. An advantage of the approach is that it would locate the structures for implementing conduct
problems programmes within the same organisational context within which services were provided. Possible disadvantages included concerns about the availability of staff and about the potential lack of independence of the implementation organisation.

- A university/Government partnership - after discussion with officials groups and consideration of the current funding constraints facing Government, the AGCP was of the view that the most viable method for implementing and evaluating conduct disorder prevention programmes was through a university/government partnership. In this partnership, the universities would take the role of providing advice, mentorship and support to government-based research staff who would have responsibility for developing, implementing and evaluating conduct disorder prevention programmes. A major advantage of this approach is that it would use existing resources within Government and the universities rather than requiring new expenditure to develop the infrastructure for developing, implementing and evaluating programmes.
Part 6: Cultural issues

6.1 Introduction

As explained in section 1, the purpose of this report is to develop evidence-based policies for managing and treating conduct problems in all New Zealand 3-7 year-olds. As noted, this approach does not preclude the development of Te Ao Māori policies developed with a by Māori for Māori framework. However, for the generic policies developed in this report to be effective it is important that interventions and programmes are culturally acceptable and delivered in culturally-appropriate ways. This section of the report considers these issues from the perspectives of Māori, Pacific and Asian populations.

6.2 Cultural competency

A lack of awareness about cultural differences can make it difficult for both providers of services and clients/families to achieve the best outcomes. Despite similarities, differences are caused by multiple components that shape identity. These components are shaped by ethnicity, culture, age, gender, sexuality, if born in New Zealand, as well as family background and individual experiences. These differences affect beliefs, practices and behaviour on the part of both clients/families and provider and also influence the expectations that client/family and provider have of each other.

Often there is lack of awareness of these differences and their impact. This most likely result from a combination of factors that may include:

- lack of knowledge, resulting in an inability to recognise the differences
- self-protection/denial, leading to an attitude that these differences are not significant, or that our common humanity transcends our differences
- fear of the unknown or the new, because it is challenging and perhaps intimidating to get to understand something that is new, that does not fit into one's world view
- feeling of pressure due to time constraints, which can lead to feeling rushed and unable to look in-depth at an individual client/family needs.

The consequences of this lack of cultural awareness may be multiple. The provider may not understand why the client/family does not follow instructions. Likewise, the client/family may reject the provider even before any one-on-one interaction occurs because of non-verbal cues that do not fit expectations.

Cultural competence as a concept differs across different communities. Some use the terms cultural sensitivity and cultural awareness as synonyms, while others believe these are steps along the road to cultural competence.
6.3 Issues for Māori

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Te Ao Māori comment

The Conduct Problems Best Practice Report highlighted the need for dual clinical and cultural competencies in working with Māori. Effective clinical practice for Māori is dependent on a clinically proficient workforce that is committed to best outcomes for Māori that are underpinned by Māori values, concepts of wellbeing and approaches to community. Critically, cultural competence can only occur after consultation and participation by Māori at all stages of the development and evaluation of new services.

Culturally-relevant best practice for Māori must incorporate a clear understanding of the importance of whānau in the intervention logic and programme process. For Māori this requires a whānau ora approach to any intervention or programme design. This means that conduct problem interventions for Māori must be aimed at working with the whānau, rather than just tamariki or taiohi. This requires professionals delivering conduct problem interventions to promote collective ownership, shared values, recognition of the authority of elders and reinforcement of positive whānau values.

The Conduct Problems Best Practice Report outlined the following principles of best practice in working with Māori tamariki, taiohi and whānau:

- support the development of a secure and positive cultural identity
• facilitate cultural matching between whānau and programme deliverer
• reinforce being Māori through the re-establishment of links with whānau and Māori communities where Māori values, beliefs and practices are the norm
• actively assist applied practice of tikanga Māori and Māori models of wellbeing
• a comprehensive assessment process that integrates cultural, clinical, educational and social dimensions
• increase Māori participation in the planning and delivery of the conduct problem programme
• promote the ongoing development of the Māori workforce
• demonstrate whānau-inclusive practice
• promote the development of personalised treatment plans that address cultural, clinical and whānau needs. These treatment plans must also be able to measure changes in whānau wellbeing for ongoing enhancement of treatment options to ensure successful outcomes.

6.4 Issues for Pacific peoples

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Pacific cultural competence
Culture determines how a Pacific person expresses and reports their concerns, how they seek help, what coping styles and social supports they use and the degree to which they attach stigma to behaviour problems. As stated in the Conduct Problems Best Practice Report, the need for services and staff to be culturally competent is essential to address significant barriers to access, to improve quality of service delivery and to ensure effective outcomes for Pacific peoples.

As discussed in the earlier report, Pacific communities are faced with competing health, social, educational and economic problems. Many Pacific families also do not come forward for assistance due to the social and self-stigma associated with behavioural problems. These barriers to seeking assistance have also been compounded by institutional arrangements characterised by a lack of culturally-appropriate resources, services and specialists. Additional barriers for Pacific peoples include mistrust and fear of treatment, different cultural conceptualisations of illness/health and behaviour, differences in language and communication patterns, previous negative experiences with service providers and racism and discrimination at the personal and institutional levels.

If Pacific communities are to come on board with the expansion of behavioural services, this requires:
better consultation and engagement with Pacific leaders in the community, health and education sectors to raise the awareness of conduct problems, the need for early intervention and treatment options

increased involvement of Pacific staff in the planning and delivery of programmes

cultural competence training to be undertaken for providers working with Pacific communities.

While it is not always possible to have appropriately-trained and experienced Pacific staff working directly with Pacific clients, it is important that sustained consultation with Pacific communities is undertaken to ensure community engagement is maximised throughout the planning and delivery of any behavioural intervention. Community and church leaders are important conduits of advice and knowledge to support both families and providers to foster cultural competence and achieve mutually supportive outcomes. When services can demonstrate cultural competence in working alongside Pacific families and communities, there is good evidence that this adds value by improving access, outcomes and client satisfaction.

For a service provider to demonstrate cultural competence requires staff to understand and appropriately apply cultural values and practices that underpin Pacific world views and perspectives on wellbeing to overall communication and clinical engagement. A Pacific person’s knowledge and realities must be considered valid and significant in establishing clinical/personal trust. As in most Pacific communities the basic unit of society is the family, not the individual, which means that the cultural understanding of the wider family must be considered in working with Pacific families (Lui 2003).

The draft Pacific Cancer Screening Workforce Development Report highlighted some of the engagement strategies needed to enable respect and trust between a provider and Pacific client and to establish a dialogue that is conducive to achieving cultural competency (Foliaki 2003). These include:

- appropriate greetings, including saying the name of the person/s correctly
- introducing yourself, your function and the function of other people that are present in the meeting
- establishing a connection between yourself and the patient/family, sharing something personal about yourself (humanising yourself, taking yourself out of your professional role before tackling the business at hand)
- explaining/demonstrating what you expect to happen during your meeting
- asking the person/family what they want/expect to happen in the meeting
- reassuring them that they have your full attention by not engaging in other activities while talking to them.

When interacting in a group:

- knowing the structure of the group and acknowledging the key people in the right order
expressing appreciation for the opportunity to meet

acknowledging past interactions

sharing some personal information about oneself that may have some connection with the group or with the purpose of the meeting

addressing the business at hand only after an emotional/spiritual connection has been made.

When these communication techniques are used by providers, this ensures that barriers for Pacific communities and families coming forward to seek assistance are reduced.

To improve outcomes for Pacific peoples and reduce inequalities there needs to be attention to both better engagement and communication with Pacific communities. Cultural competence needs to be fostered in all services and the development of Pacific-specific services and workforce is needed to support delivery of behavioural services to Pacific peoples.

6.5 Issues for Asian people

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Each Asian community has its own identity which has been constructed by varying social and cultural norms. In addition, individuals in each community will then hold an understanding of their culture constructed from a range of further influences, including place of birth, whether born in New Zealand, length of stay, language use, schooling experience and whether all family members are still in New Zealand.

This complexity of identity forming raises challenge for practitioners working effectively with people of Asian descent. These include:

- reconciling differing concepts of culture and how this influences when behaviours are acceptable or not
- understanding alternate views that conduct problems, for example, can be seen as being disgraceful and bringing shame upon both the immediate and extended family and working through this concept
- identifying what interventions are effective for Asian children and young people
- working through issues relating to post-migration adjustment difficulties and acculturation stress in developing a rapport with the family
- working with communities to stop families from avoiding or delaying seeking clinical assistance
- avoiding stereotypical views of Asians that may impact diagnoses.

The Conduct Problems Best Practice Report highlighted that recent Asian migrant parents often encounter various barriers impeding their ability to seek help from health and social services, such as shame, lack of knowledge, mistrust in New Zealand health systems, language difficulties and lack of support.

Therefore, advice in the Best Practice Report to improve engagement by professionals with Asian families included the need to:

- build peer supports for families
- develop awareness-raising programmes explaining conduct problems and where families can seek help alongside any treatment programmes
• print fact and programme information in Asian languages, for example, pamphlets or school newsletters
• provide credible interpreter assistance
• ensure that services are flexible in working hours to accommodate working parents
• deliver intervention programmes in non-threatening or stigmatising environments, such as at schools
• provide culturally-competent workers.

Accordingly, improving the cultural competence of the workforce working with Asian families requires training for practitioners delivering behavioural services to include:

• cultural awareness, which describes the process of becoming sensitive to interaction with other cultures
• cultural knowledge, which is the process in which professionals obtain a sound educational foundation concerning the various world views of cultures
• cultural skills, which involves learning how to implement culturally-appropriate assessments and interventions.

A key recommendation in the Best Practice Report stressed the importance of considering socio-cultural, developmental and psychological issues alongside any behavioural intervention to ameliorate children’s maladaptive behaviours or parenting styles. The first report highlighted some aspects of what culturally-competent delivery and interaction with Asian families would look like. This included providers:

• taking time to understand parents’ concerns and wishes, including accepting that some Asian parents may prefer dietary treatments, traditional healers or spiritual methods to Western interventions
• working at the individual level with parents to explain a range of intervention and support options and reinforcing the importance of adhering to intervention regimes at home
• taking into consideration the process of adaptation to the new environment adopted by children and the development of their identities
• demonstrating a sound understanding of the development of cultural identities and experiences of racism or marginalisation
• having adequate cultural supervision
• fostering affective displays among children by parents.

Moving forward, the Asian researchers and practitioners who drew up the first report emphasised the relative paucity of research on conduct problems for Asian children. Care must be taken in applying overseas research findings to Asian communities in New Zealand. This means that as part of any research agenda to establish a New Zealand evidence-base to
implement best practice interventions, sampling to monitor the impact on Asian children with various forms of behavioural problems is required. Advice on delivery of behavioural services to Asian communities requires ongoing specialist input provided by Asian experts.
Part 7: Conclusions and recommendations

7.1 Summary and overview

In this report, the AGCP has attempted to set out a comprehensive evidence-based plan for the development, implementation and evaluation of services, programmes and interventions aimed at treating and managing childhood conduct problems in 3-7 year-olds. These policies range from universal programmes targeted at all parents and teachers to highly intensive and individualised programmes targeted at the parents and teachers of children with severe conduct problems. There are several key themes in the proposals developed here that are of importance.

7.1.1 The first of these themes centres on the use of the prevention science paradigm that provides the conceptual and methodological foundations of the recommendations made in this report. This approach requires that the selection of interventions and programmes be based on reviews of well-conducted evaluations using randomised control trials and that the implementation of policies which are based on such evidence also be evaluated systematically using pilot studies and randomised trials. While this approach to the implementation and evaluation of programmes is more demanding than that conventionally employed in the implementation of Government policy, it has the advantage of ensuring that investment in the treatment of children with conduct problems are made on a considered basis and that funding follows the evidence. The aim is to transfer funding from programmes which are largely ineffective (and hence represent a waste of money) to programmes which have been proven to be much more effective (and hence represent a better investment).

7.1.2 The second of the themes in the report concerns the need for effective programmes to be delivered at varying levels of intensity, ranging from universal programmes to highly-targeted programmes and for these interventions to be introduced at multiple sites including home and school. These complexities mean that the development of a nationwide system for the identification, management and treatment of conduct problems in 3-7 years-olds is likely to take a number of years to fully implement. While a lengthy development period may be seen as a disadvantage, the AGCP was of the view that it is necessary to develop a comprehensive system of interventions rather than continuing to rely on the relatively ineffective ad hoc solutions and quick fixes that have been adopted in the past. The advisory group noted with concern that, although evidence on effective treatments for children with conduct problems has been available for more than two decades, the introduction of these interventions in New Zealand has been very limited and patchy.

7.1.3 A third major theme in the development of this policy has been an attempt to address the complexities of developing inclusive policies suitable for a multicultural context. Specifically, the advisory group recognises the tensions that exist between the Western science-based approach that underlies this report and approaches that emphasise the role of indigenous knowledge. To resolve some of these issues the group has proposed a strategy based around Articles 2 and 3 of the Treaty of Waitangi which permits the development of both mainstream programmes available to everyone and indigenous programmes.
7.2 Policy recommendations

The material presented in this report leads to the following recommendations:

Part 1
1.1 The development of the generic New Zealand policy for the management of conduct problems in 3-7 year-olds should be based upon the prevention science approach described in section 1.2.
1.2 Consideration should be given to developing a parallel policy for Māori using a Te Ao Māori perspective.

Part 2
2.1 The development, implementation and evaluation of programmes for 3-7 year-olds should follow the portfolio of programmes set out in Table 1 on page 16 of this report.
2.2 The first steps in implementing the portfolio of policies in Table 1 should centre around the development of the Incredible Years Basic Parenting Programme (IYBPP) and a New Zealand version of the First Step to Success classroom programme.

Part 3
3.1 The initial implementation of IYBPP should take place at selected GSE sites that have experience with this intervention.
3.2 The initial implementation of First Step to Success should be through selected RTLB cluster groups other than those used for the Incredible Years evaluations.
3.3 Both Incredible Years and First Step to Success should be subject to initial pilot tests of acceptability (as described in sections 3.1.2 and 3.2.2) before randomised trial assessment of each programme is undertaken.
3.4 Both Incredible Years and First Step to Success should be evaluated for programme fidelity and effectiveness using variants of the wait list-controlled design shown in Figure 1.

Part 4
4.1 Throughout the development, implementation and evaluation of Incredible Years and First Step to Success, continued investment should be made in monitoring, establishing and maintaining implementation fidelity.
4.2 Throughout the development, implementation and evaluation of Incredible Years and First Step to Success continued investment should be made in assessing the cultural appropriateness and effectiveness of these programmes for Māori, Pacific and Asian populations.

Part 5
5.1 Forward planning should take place to include the Every Family initiative as a Tier 1 programme for parents once effective services for the management of conduct problems in the 3-7 year-old age group have been developed.
5.2 Immediate investments should be made in developing an integrated system of teacher education and training that ensures all teachers have training in the causes, identification, management and treatment of conduct problems in children. Programmes should be developed for both early childhood and primary sectors.
5.3 Investigations should be conducted into the feasibility of implementing the School-wide Positive Behaviour Support programme as a “whole school” programme in a representative sample of New Zealand primary schools.
5.4 Immediate assessments should be made of the feasibility of introducing, piloting and evaluating, in representative samples of sites, the Tier 3 interventions shown in Table 1.

5.5 In the process of taking interventions to scale, continued investments should be made into assessing programme effectiveness, sustaining practitioner training and establishing client engagement.

5.6 Forward planning should take place to develop a dedicated organisational structure, based around a university/Government partnership, that has the capacity to develop, implement and evaluate programmes, policies and interventions for the management and treatment of conduct problems in children and youth.

Part 6
Recommendations for Māori:
6.1 All professionals working with Māori and whānau must demonstrate cultural competency as a core skill.

6.2 Effective participation by Māori must take place at all stages of the design, development and evaluation of new services.

6.3 Providers of conduct problem services must be committed and accountable to achieve the best possible outcomes for Māori.

6.4 Conduct problem interventions for Māori must recognise the central role of whānau in the treatment and management of conduct problems.

6.5 Professionals must deliver conduct problem interventions to promote collective ownership, shared values, recognition of the authority of elders and reinforcement of positive whānau values.

Recommendations for Pacific peoples:
6.6 Providers of conduct problem services receive cultural competency training when working alongside Pacific children, young people and their families. These services will also have a Pacific-specific service delivery plan which is adequately funded with clear deliverables.

6.7 Workforce development strategies as part of conduct problem service expansion should include a Pacific workforce strategy.

Recommendations for Asian peoples:
6.8 Providers operating conduct problem services receive cultural competency training when working alongside Asian children, young people and their families.

6.9 Development of awareness-raising programmes explaining conduct problems should occur parallel to delivery of treatment programmes.

6.10 Programme information should be available in Asian languages and, where necessary, credible interpreter assistance be made available.

6.11 Conduct problem services should be accessible to parents in terms of times of day and be delivered in an environment acceptable to parents.
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Appendix: Overview of Recommended Programmes

Introduction

The purpose of this appendix is to provide supporting material on each of the programmes recommended in Table 1 of the main report. These interventions include four parent management training programmes (Parent Management Training - Oregon Model, Incredible Years, Triple P, and Parent Child Interaction Therapy), teacher management training programmes (School Wide Positive Behaviour Support and several targeted school-based interventions) and an intervention programme for children in care (Multidimensional Treatment Foster Care).

Each appendix follows a standard format that:
- Outlines programme goals
- Identifies the conceptual framework on which the programme is based
- Describes the programme
- Outlines the resources available to support the programme
- Summarises the evidence on programme efficacy and effectiveness
- Describes the dissemination of the programmes

It should be noted that because of the breadth of the material being reviewed, some of the findings on programme efficacy have been based on samples of children with ages outside the range of 3 to 7 years. This information has been included to ensure that the full range of evidence is described within each appendix.
Appendix 1.1: Parent Management Training - Oregon Model (PMTO)

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Programme objectives

Parent Management Training was developed in the 1960s by Gerald Patterson, John Reid and Patricia Chamberlain, research scientists at the Oregon Social Learning Centre (OSLC) and is considered to be the “grandfather” of parent training programmes for the families of children who engage in high rates of antisocial behaviour. It is a family intervention designed to empower parents by training effective parenting practices. Its aims are to prevent or reverse antisocial development and its sequelae by increasing positive family interactions, reducing parental stress, reducing negative and abusive family interactions, reducing antisocial behaviour and increasing pro-social behaviours to the levels observed in well functioning families.

Conceptual framework

The conceptual framework for PMTO is social learning theory (now referred to as social interaction learning theory). The coercion theory component of social learning theory (developed by the OSLC team) is an account of how antisocial behaviours are learned during social interactions with parents, teachers, peers and others. Coercion theory is based on 40 years of direct observation by OSLC researchers of social interactions in the families and peer groups of antisocial and normally development children. Social learning theory and coercion theory are theories which use the learning processes identified by behaviour analysts to explain social and antisocial development.

Central to coercion theory is the observation that family members learn to avoid child temper tantrums by giving in to the demands of the child while the child learns to escalate their level of aggression until the other party gives in. The result is poorly functioning families in which the child more often gets what he/she wants by using coercive skills than by using pro-social skills. In well functioning families this ratio is reversed.

PMTO uses the insights from social learning theory to develop interventions designed to prevent, treat, and reverse antisocial development in children and adolescents. The central insight from 40 years research is that, in order to change the behaviour of antisocial children, we must first change the way in which the social environment reacts to antisocial behaviour. Of course, variables such as parental attributions, marital conflict, divorce and poverty also have to be taken into account – but as contextual variables, not as causes. For example, Snyder, Cramer, Afrank and Patterson (2005) found that negative attributions did not predict growth in antisocial behaviour but only increased “the likelihood that there would be a continuation of ineffective discipline practices, in turn producing continued growth in antisocial behaviour” and “a divorce does not automatically produce an antisocial child; it depends upon whether or not parenting practices are disrupted” (Patterson, 2005, p. 28).
Description of the interventions

A number of different versions of Oregon Parent Management training (PMTO) have been developed to meet the needs of different kinds of families with antisocial children in the age range from 4 to 18 years. These include versions designed for use with antisocial primary school children, secondary school children, the parents of children in low decile neighbourhoods, recently separated parents, parents in recently blended families and parents in countries outside the USA.

Section 1: Standard Parent Management Training (PMTO)

The original version of Oregon style Parent Management Training was designed for primary school aged children (children aged 6 to 12 years). It is a flexible parent training programme. The parenting practices which are taught and practised include: skill encouragement, i.e. teaching new behaviours using encouragement, praise, reward charts and other forms of positive reinforcement; limit setting (reducing deviant behaviour by being consistent in the use of short, relatively immediate, non corporal sanctions such as time out, work chores and privilege removal contingent on rule violations); monitoring (tracking the child’s whereabouts, associates and behaviour and arranging for appropriate supervision); increased positive involvement (investing time in activities with the children and demonstrating interest, attention and caring); and improved family problem solving techniques which help family members to plan, negotiate disagreements, establish rules and specify consequences for following and not following agreed rules.

Where needed, other topics which are relevant for particular families are added to the intervention. Examples include communication skills, regulating emotions, promoting success at school, and so on. These skills are introduced sequentially from session to session. A typical order might be identifying strengths, giving good directions, using encouragement, limit setting, problem solving, monitoring, and so on). The skills are introduced using demonstrations and role plays and practised using homework exercises and reviews from one session to the next. The training programme can be provided in any comfortable, readily accessible setting large enough to accommodate up to 15 sets of parents.

The basic programme involves 10, weekly, 2-hour sessions. However, at least 25% of families require more than this. The training programme normally continues until parent positive and negative behaviours and child positive and negative behaviours are observed to be occurring within the range observed in well-functioning families.

Section 2: Targeted versions of PMTO

A number of targeted versions of PMTO have been developed. These include PMTO for recently separated single mothers, for recently formed step families, for the parents of high risk teenagers, for difficult to engage parents, for Latino parents, and so on.

The LIFT Parenting Programme

The Lift Parenting Programme is comes in two versions, one for the parents of Grade 1 children and one for the parents of Grade 5 (10- to 11-year old children). It is one component of Linking the Interests of Families and Teachers (LIFT) described in Section 3 below. The LIFT parenting programme consists of 6 weekly 1.5 hour sessions delivered in a group format to the parents of up to 15 families. A training manual is available.
The Family Management Curriculum

The Family Management Curriculum is part of the Adolescent Transitions Programme which is described in Section 3 below. It is an adapted version of PMTO designed for the families of antisocial teenagers. It is a 12 session programme which can be delivered either as a group programme or as an individual programme. The programme which is described in a manual (Dishion, Kavanagh, Veltman, McCartney, Soberman, & Stormshak, 2005) covers the use of (a) positive reinforcement to increase desired behaviours, (b) limit setting, monitoring, and effective consequences, and (c) communication, problem solving and negotiating skills.

Parenting Through Change

Parenting Through Change is designed for recently separated mothers with children aged 6 to 10 years. It consists of 14 weekly group meetings. Groups may range in size from 6 to 16 mothers. The content of each session is set out in a manual (Forgatch, 1994). Each session includes a discussion of parenting procedures and their rationale, exercises, role plays and group process suggestions. The programme includes a 30-minute videotape The Divorce Workout (Forgatch & Marquez, 1993) which shows three parents using effective parenting practices. The programme is a modified form of PMTO based on a longitudinal study of 197 recently separated mothers (ODS-1) which identified five apparently essential sets of parenting skills: regular positive involvement, skill encouragement (the differential reinforcement of prosocial behaviour), discipline (limit setting and effective sanctions for rule violations), supervision (monitoring), and problem solving – and it is these which are covered in the training meetings. ODS-1 also identified many of the contextual factors which disrupt these processes following separation and this knowledge enables the inclusion of training and advice in how to handle these adversities.

Marriage and Parenting in Stepfamilies

Marriage and Parenting in Step Families (MAPS) is a modified form of PMTO designed for the parents of reconstituted families. It is a 13-session programme similar in content and delivery to Parenting Through Change. Session content and delivery is described in a manual (Forgatch & Rains, 1997). In addition to training in the core parenting skills (skill encouragement, discipline, monitoring, problem solving and positive involvement), the programme also includes modules on presenting a united front, the role of step parents, debunking step family myths and, if needed, a module on relationship enhancement.

Section 3: Universal versions of PMTO

Several tiered, universal interventions have been developed by the OSLC team. The ones which are generating evaluation data are Linking the Interests of Families and Teachers (LIFT) and the Adolescent Transitions Programme (ATP).

Linking the Interests of Families and Teachers (LIFT)

The LIFT programme is a tiered prevention programme involving universal, selected and indicated interventions for the parents of primary school aged children. Its primary aim is to reduce the prevalence of conduct disorder and delinquency. The development of LIFT was guided by three observations (a) the school system is the only agency which has contact with the great majority of children (so the programme must be school based), (b) the earlier we can deliver effective interventions to children with antisocial behaviour, the greater the likelihood that child behaviour can be changed (so the programme should be available on school entry), and (c) at school entry we cannot reliably predict who will develop conduct disorder (so the
programme must be universal). The LIFT programme includes a home intervention, a classroom intervention, and a playground intervention.

The home intervention. The home intervention is an abbreviated version of PMTO delivered in a group format during six, weekly, 1.5 hour sessions. Groups are limited to 15 families. The aim is to change parent behaviour so that they are delivering consistent and effective positive reinforcement, providing effective supervision, and engaging in effective limit setting and disciplinary practices. During the main randomised trial, the following conditions were provided. “To maximise participation, groups were offered on each weekday evening and one weekday afternoon and free childcare was provided. To encourage the development of parent-to-parent friendships, parents were asked to attend the same time slot during each week. To increase parent familiarity with the school environment, meetings were held in neighbourhood school classrooms” (Reid & Eddy, 2002, pp. 224-225).

The classroom intervention. The classroom intervention consists of 30-minute lessons delivered by a trained LIFT teacher at the rate of two a week for 10 weeks. The lessons cover interacting positively with peers, listening skills, emotion recognition, emotion management skills, group cooperation skills and problem solving skills. Children work on their social learning activities in groups of five.

The playground intervention. Following the classroom lessons, children then participate in a playground version of the Good Behaviour Game. This is an activity in which individual children earn armbands from the playground supervisor for cooperative play and for periods of play without antisocial behaviour. At the end of the period, the armbands are collected in a class jar and, when the jar is full, the entire class earns a reward. Children also lose good behaviour points (previously allocated to each group) for antisocial behaviour. At the end of the recess, the points remaining are charted and the five member groups who have lost no more points than a pre-set criterion earn a sticker. Once the a group chart reaches a pre-set criterion, each member of that group earns a prize.

The Adolescent Transitions Programme (ATP)
The Adolescent Transitions Programme (Dishion & Kavanagh, 2003) is a tiered programme involving universal, selected and indicated interventions. It has been designed for the families and teachers of antisocial teenagers. The ATP has been derived from earlier attempts to design programmes which would reduce problem behaviours in adolescents (e.g. Dishion, Patterson & Kavanagh, 1992) and incorporates elements designed to prevent the failures which occurred during those earlier attempts.

Universal elements. The programme includes two universal elements. These are home visits by a Parent Consultant and a school-based Parenting Resource Centre. The main purpose of the home visits is to set goals for the coming school year. The goals of the Resource Centre are to “(a) establish an infrastructure for collaboration between school staff and parents, (b) support norms for protective parenting practices and (c) disseminate information encouraging family management practices that promote school success in order to prevent the development of early-onset alcohol and other drug use” (Dishion & Kavanagh, 2002, p. 259).

Selected intervention. The selected element is a three session intervention called the Family Check-Up which offers a family assessment service, professional support and motivation to change. Central to the intervention is a system of motivational interviewing, in which the consultant provides data-based feedback about family behaviour and its future implications, communicates student and parent responsibilities for behaviour change, includes students and
parents in the construction of a menu of effective behaviour change options, shows empathy for clients and their situation, and aims for clients to leave the feedback meeting with a sense of self-efficacy by assisting in the selection of realistic, measurable and achievable behaviour change goals. Family Check-Up is based on the results of a series of OSLC analyses of resistance where it was found that confrontation heightens resistance whereas support, reframing and questioning reduce resistance.

Indicated interventions. The ATP provides parents with a menu of family services: a school monitoring system, parent groups, PMTO, and a family management based case-management service. The aim is to provide a choice which motivates further engagement following Family Check-Up. Central to work at the indicated level is the Family Management Curriculum. This has three major elements: using incentives to promote behaviour change, limit setting and monitoring (supervision), and family communication and problem-solving. The FMC manual (Dishion et al., 2005) describes the FMC exercises, rationales, role-plays, and forms for each session. These can be delivered as an individualised therapeutic programme or during a series of 12 parent group meetings.

Resources

Training resources exist for each of the various versions of PMTO and many of these are in their second or third editions. These resources include:

- therapist training manuals (Dishion, Kavanagh, & Soberman (in press); Forgatch, Rains, Elgesem & Knutson, 2006; Forgatch, Rains & Knutson, 2002, 2005; Knutson, Rains, & Forgatch, 2006)
- manuals for monitoring implementation fidelity (Knutson, Forgatch & Rains, 2003)
- manuals for running the parent management training sessions (Dishion et al., 2005; Forgatch & Rains, 1997; Forgatch, Rains, Elgesem & Knutson, 2006)
- instructional books for parents (Dishion & Patterson, 1996; Forgatch & Patterson, 2005; Patterson & Forgatch, 2005) and
- instructional videos for parents (e.g. Forgatch, 1990; Forgatch & Marquez, 1993; Forgatch & Reid, 1991).

Evidence of effectiveness

The research into the Oregon intervention programmes is distinctive in a number of respects. First, it is more extensive than the research behind any of the other empirically supported parenting training interventions. Second it is based on direct observations of family interaction and child behaviour in hundreds of families of both antisocial and normally developing children. Third, the outcome measures are the most reliable and robust of the measures used in the field including (as they always do) direct observation measures of changes in parent and child antisocial behaviour – a decision motivated by the early observation that mothers were unable to provide an accurate report of changes in the behaviour of their children (Patterson, Reid & Eddy, 2002). Fourth, each evaluation takes care to demonstrate that parent management training results in changes in parent behaviour and that it is these changes which produce the changes in child behaviour. Fifth, the Oregon interventions are derived from an evolving theory about the causes of aggression (Patterson, 1982; Reid, Patterson & Snyder, 2002). The Oregon programme (which dates from 1968) has involved a cyclical programme of research in which analysis of the causes of antisocial behaviour have resulted in the development of
interventions targeting these causes and intervention failures have spurred further research into the causal processes involved in antisocial development.

*Development research*

Early experimental evaluations of PMTO with the parents of 4- to 12-year old children with relatively severe behaviour problems (including both defiance and aggression) counted the number of aversive child behaviours per hour measured by direct observation in the home. Three early evaluations of PMTO showed (a) a mean reduction from 9.7 to 3.7 deviant behaviours per hour in the home while control children increased (Walter & Gilmore, 1973), (b) a mean reduction from 4.2 deviant behaviours per hour in the home to 0.4 (Patterson, Cobb & Ray, 1973) and (c) a mean reduction from 12.6 deviant behaviours per hour in the home to 4.2 while control children remained unchanged (Wiltz & Patterson, 1974). Subsequent reports showed that the main effect of the training was to reduce contingency errors (reinforcement for misbehaviour and punishment for good behaviour) rather than to increase parental reinforcement for desired behaviour (Taplin & Reid, 1977), and that the reduced deviant behaviour rate of the children of trained parents remained within the normal range 12 months later (Patterson, 1974). Refined versions of the programme (paralleled by changes in the outcome measure to include all aversive child behaviours) produced larger gains, from 54 aversive behaviours per hour on average to 14 at a 12-month home follow-up (Weinrott, Bauske & Patterson, 1979).

In order to be sure that it is changes in the trained parenting practices which are producing the observed changes in child behaviour it must be demonstrated experimentally that the degree of change in child behaviour is highly correlated with the degree of change in trained parent behaviours. This has now been demonstrated four times (Dishion & Andrews, 1995; Forgatch & DeGarmo, 1999; Forgatch, DeGarmo & Beldavs, 2005; Reid, Eddy, Fetrow & Stoolmiller, 1999).

*RCTs with the parents of preschoolers with conduct problems*

The PMTO interventions were designed for use with the parents of school aged children and have not been separately trialled with the parents of preschoolers. There is one report on the effects of the three-session *Family Check-Up*, provided at age 2 on the development of maternal involvement and child disruptive behaviour at age 3 and 4 years (Shaw, Dishion, Supplee, Gardner & Arnds, 2006). Significant improvements (compared to controls) were observed on both measures in a randomised control trial involving a sample of 120 at-risk mother-son diads recruited when the child was 2 years of age.

*RCTs with the parents of 6- to 12-year olds with conduct problems*

The earliest RCTs involved samples of clinic referrals of families with one or more primary school aged children with high rates of antisocial behaviour and low rates of compliance (Patterson, Chamberlain & Reid, 1982; Walter & Gilmore, 1973; Wiltz & Patterson, 1984). In the Patterson, Chamberlain and Reid (1982) trial, the total aversive behaviour of the children of PMTO trained group changing from 55 per hour to 19 per hour post treatment while that of a community treatment control group changed from 53 per hour to 44 per hour. The ES on all child aversive behaviour in the home was 1.3.

The efficacy of standard PMTO has been further replicated in trials involving the parents of chronic delinquents (Bank, Marlowe, Reid, Patterson & Weinrott, 1991) and teenage offenders in foster care settings (Chamberlain, 1990; Eddy, Whaley & Chamberlain, 2004). The effects of PMTO have been replicated in RCTs undertaken by independent teams (e.g. Tremblay, Vitaro, Bertrand, LeBlanc, Beauchesne, Boileau, et al., 1992).
RCTs with parents of varying ethnicity or culture

A version of PMTO written for Latino parents has been field tested using a randomised control trial with 73 Spanish speaking parents with a middle school aged child at risk for problem behaviours. The intervention included new content “developed to address the culturally specific risk and protective factors involved in adjustment outcomes for Latino parents and youth” (Martinez & Eddy, 2005, p. 845). The intervention produced significant effects (with small to medium effect sizes) for all but one of the parenting skills taught and for all but one of the child outcome measures used.

Randomised prevention trials with 6 to 10-year old children – the LIFT programme

Effects of the LIFT programme were measured over a three year period using a sample of 671 students in 12 schools located in neighbourhoods with high juvenile crime rates. Control schools were paid for their participation. Outcome measures collected at 0, 6, 12 and 24 months included direct observations of the children in the classroom, on the playground and at home, direct observations of family interaction, teacher reports, school records and court records. Details and immediate outcomes of this randomised clinical trial have been reported in Reid, Eddy, Fetrow and Stoolmiller (1999) and Stoolmiller, Eddy and Reid (2000). Follow up reports have been provided by Eddy, Reid and Fetrow (2000) and Eddy, Reid, Stoolmiller and Fetrow (2003). Programme fidelity was very high, 93 per cent of families received all training materials, and 94% reported that they would recommend LIFT to other parents.

Measures of post programme impacts showed that mother avertiveness decreased significantly with the greatest changes being shown by the most aversive mothers and that playground aggression decreased significantly with the most aggressive children showing the greatest improvement. Measures of long term impacts in the 5th grade sample showed that compared to LIFT students, control students were 2.2 time more likely to have associated with antisocial peers, 1.8 and 1.5 times more likely to have engaged in patterned alcohol or marijuana use, and 2.4 times more likely to have been arrested for the first time.

Randomised prevention trials with antisocial adolescents: The Adolescent Transitions Programme (ATP)

Evaluation of the ATP rests on the results, as yet only partly analysed, of a randomised trial involving all of the 6th grade students in four multiethnic Oregon middle schools. Reports to date have largely been limited to presentations on particular outcome variables. Approximately 60% of parents agreed to a home visit and 30% took advantage of the Family Check-Up. The parents of the students who self-reported larger numbers of risky behaviours made greater use of the Resource Centre and the Parent Consultant and the students of parents who made the greatest use of Resource Centre staff showed the greatest reduction in teacher reported risk scores (Stormshak, Dishion, Light & Yasui, 2005). After 2 years of follow up, the ATP students were found to have less contact with deviant peers, and reported engaging in less antisocial behaviour than control students (Dishion & Kavanagh, 2000). After 3 years both the at-risk and the typically developing students reported less substance use than control students (Dishion, Kavanagh, Schneiger, Nelson & Kaufman, 2002).

Effects of the first version of the Family Management Curriculum were evaluated in a randomised component analysis involving 109 families (Dishion & Andrews, 1995). The intervention produced significant reductions in negative interactions with parents in videotaped problem solving tasks and reductions in teacher reported antisocial behaviour at school. Similar results were obtained in a replication RCT by Irvine, Biglan, Smolkowski, Metzler and Ary (1999).
Prevention trials with recently divorced mothers
The effects of Parenting Through Change have been documented through multiple analyses of the data from a single large randomised prevention trial involving 238 recently separated mothers and their sons – the ODS-2 project. The mothers had been separated for an average of 9 months and 76% were receiving public assistance. Changes in parenting practices and child behaviour were measured using blind coding of videotaped recordings of mother-child interactions during structured interaction tasks lasting 45 minutes. Teacher reports were also collected annually at 0, 12, 24 and 36 months. Trajectories over a 30 month period were stable or increasing for experimental group mothers and deteriorating for control group mothers on measures of parenting practice and child compliance, aggression, reading achievement and associations with deviant peers (Forgatch & DeGarmo, 2002; Martinez & Forgatch, 2001).

More detailed analyses of the data (e.g., DeGarmo, Patterson & Forgatch, 2004; Forgatch & DeGarmo, 2007; Patterson et al., 2004) have identified several mediational mechanisms which are involved in the continued improvement which occurred in this sample. In the Patterson et al. (2004) analysis, the mothers who improved their parenting skills during the first 12 months also showed significant reductions in maternal depression and this reduction in depression was a significant predictor of improved family functioning and child behaviour during the next 18 months. In an analysis by DeGarmo and Forgatch (2005), improvements in parenting skills were correlated with reductions in their son’s deviant peer affiliations and this, in turn, was correlated with significant decreases in delinquent behaviour as assessed by teachers.

Randomised prevention trials with step families
The effects of Marriage and Parenting in Stepfamilies have been measured in a single large randomised prevention trial involving 110 recently married biological mother and stepfather families (Forgatch, DeGarmo & Beldavs, 2005; DeGarmo & Forgatch, 2007). Couples had been married an average of 15 months and the mean number of children under 18 in the 110 homes was 2.2. Focal children were the mother’s biological children who lived with her at least 50% of the time. The mean age of these children was 7.5 years. A total of 9 mother and father variables and 5 child outcome variables were assessed at 0, 12, and 24 months. Changes in parenting practices and in the behaviour of the focal children were measured using blind coding of videotaped interactions between mother and child and father and child on a series of structured tasks. Experimental to control group comparisons at 12 months showed a significant improvement in the parenting practices of the experimental parents with an effect size in the large range ($\eta^2 = .14$) and these changes predicted improvements in child compliance and problem behaviours at home and at school. This project is now exploring the relationship between fidelity of programme delivery and outcomes (Forgatch, Patterson, & DeGarmo, 2005).

Controlled case counts
Reid (1993) describes the results of an analysis in which 85 PMTO treated families were divided into those with children aged less than 6.5 years and those aged 6.5 years or more. Treated children were judged to be successes if, following treatment, the child's aggressive behaviour had fallen to within .5 of a standard deviation from the mean of control group children. Using this criterion, 63 per cent of the younger children and 27 per cent of the older children were classified as successes.

In several prevention studies involving PMTO (e.g. Forgatch & DeGarmo, 2002; Patterson, DeGarmo & Forgatch, 2004; Vitaro, Brendgen & Tremblay, 2001) effect sizes have steadily increased during 3 to 7 year follow-ups with the parent behaviour and child behaviour of
experimental families showing further improvement during follow-up while those of the control families continued to deteriorate.

Dissemination

Large scale trials of PMTO have been reported for Norway, Iceland, the Netherlands, and Michigan. Trials currently underway include a trial for parents who have received court ordered supervision in Lincoln County, a rural Oregon County trial, a trial of PMTO for 400 incarcerated parents, and a pilot study of the effects of PMTO during the transition from foster care to returning home (the Pathways Home trial).

A descriptive report of the adoption and implementation of PMTO during the nation wide roll out in Norway has been provided by Ogden, Forgatch, Askeland, Patterson and Bullock (2005). Ogden et al. report that data are being collected on implementation fidelity using the OSLC Fidelity of Implementation Rating System (Forgatch, Patterson & DeGarmo, 2005). Results of a randomised trial involving 112 families have been reported by Ogden, Sorlie and Amlund-Hagen (2008). In this trial, significantly improved post test scores were obtained by the experimental group on measures of effective parental discipline, child externalising behaviour and ratings of social competence.

References


Appendix 1.2: Incredible Years Programmes

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Programme goals

The Incredible Years programmes have two long-range goals. The first is to provide cost-effective, early prevention programmes that all families and teachers of young children can use to promote social, emotional, and academic competence and to prevent children from developing conduct problems. The second is to provide comprehensive interventions which treat and reduce early onset conduct problems in 2- to 8-year old children. Each of the programmes in the Incredible Years series aims to change the quality of the relationships between parents and children, between teachers and children, between teachers and parents, and between children and their peers.

Conceptual framework

The Incredible Years Basic programmes are based on social learning theory (also referred to as social interaction learning theory) which in turn is a development of applied behaviour analysis. The original programmes were strongly influenced by the work of the Patterson and the Oregon group. The video modelling component was suggested by the modelling theory of Albert Bandura.

Description of the Interventions

Parenting Programmes

The parenting practices which are taught and practised during the parenting programmes include: increasing positive and nurturing interactions, replacing harsh and inconsistent interactions with planned ignoring and logical and natural consequences, monitoring child behaviour, and problem solving. Parents are also taught how to manage anger, improve problem solving and communication skills, get support from others, and to work collaboratively with teachers. The training programmes can be provided in any comfortable setting (e.g. school or community hall) which is large enough to accommodate up to 15 sets of parents.

The Preschool Basic programme

The Preschool Basic programme is for the parents of children aged 3 - 6 years. The programme involves attendance at 12 to 14, weekly, 2-hour group sessions. There are four components. Module 1 covers the use of child-directed play to promote positive relationships, academic and persistence coaching, and social and emotional coaching. Module 2 covers how to use praise and incentives to encourage cooperation. Module 3 covers how to establish household routines, rules and limits. Module 4 covers following through on limits, ignoring inappropriate behaviours, time out, natural and logical consequences, and teaching children to problem solve and self-regulate. There are two optional programmes: the School Readiness Programme (4 sessions) or Module 8: Supporting your child’s education (4 sessions).
The School Age Basic programme
The School Age Basic programme is for the parents of children age 6 to 12 years. It requires attendance at 12 to 14, weekly, 2-hour group sessions. This programme consists of two components: Module 9 covers the importance of parental attention and special time; social, emotional and persistence coaching; using effective praise and encouragement; and using tangible rewards. Module 10 covers reducing inappropriate behaviours by ignoring misbehaviour, time out, and logical and natural consequences. There is an optional 4 week Module 8 which covers topics relating to supporting school work and fostering good learning habits and routines.

The Advance parent training programme
The Advance programme is designed for the parents of children age 6 - 12 years who have completed either the Preschool Basic programme or the School Age Basic programme. The Advanced parent training programme requires 9 to 11, weekly, 2-hour group sessions. It consists of three components. Module 5 covers how to communicate effectively using active listening and speaking up, communicating positively, and giving and getting support. Module 6 covers problem solving for parents and Module 7 covers teaching children to problem solve in the midst of conflict and family problem-solving meetings.

Variations on the Basic Programmes
There is a version of the Preschool Basic Programme (the Self Administered programme) which is available for parents who cannot access group programmes. Access to a DVD player is required.

Teacher Professional Development Programmes
Incredible Years has two programs for teachers: The Teacher Classroom Management Program and the Dina Dinosaur Classroom Curriculum. The teacher training intervention is focused on strengthening teachers’ classroom management strategies, promoting children's pro-social behaviour and school readiness (reading skills), reducing classroom aggression, and strengthening cooperation with peers and teachers. The intervention focuses on ways teachers can effectively collaborate with parents to support their school involvement and promote consistency from home to school. The programme consists of 5 modules:

1 - The importance of teacher attention, encouragement, praise
2 - Motivating children through incentives
3 - Preventing behaviour problem by preparing children for transitions, establishing clear rules, giving clear commands, engaging children’s attention, using nonverbal cues, monitoring and giving positive attention
4 - Decreasing students' inappropriate behaviours by redirection, engagement, ignoring, timeout, color card system, logical consequence, removal of privileges
5 - Building positive relationships with students, problem solving and anger management in the classroom

Resources
The Incredible Years parent training materials include:
Comprehensive leader manuals for each program
- Twelve videotapes for the early childhood BASIC program.
- Three videotapes for the school-age BASIC program.
- Six videotapes for the ADVANCE program.
- Two videotapes for the EDUCATION program.
- A self-administered manual for the BASIC programs.
- Weekly “refrigerator notes” (brief points to remember) for parents.
- Assignments for parents’ home activities.

The Incredible Years teacher training materials include:
- Comprehensive leader manuals
- Twelve videotapes.
- Self-administered manuals.
- Teacher blackboard notes (key points to remember for each program).
- Teacher classroom practice assignments.

The Incredible Years child training materials include:
- A comprehensive leader manual
- Thirteen videotapes.
- Weekly cue pictures of key concepts for children.
- Refrigerator magnets for children (reminding them to do their homework).
- A feeling-wheel game.
- Thirty-nine laminated cue cards.

**Evidence of Effectiveness**

*RCTs with parents of preschoolers with elevated rates of antisocial behaviour*

The earliest evaluations (Webster-Stratton, 1982, 1984) showed that the training programme produced large increases in maternal positiveness, that it reduced intensity scores on the Eyberg Child Behavior Inventory (ECBI) to within the normal range (below 127), and that these changes were maintained at a 1-year follow up.

The first clinical trial involved the parents of 114 antisocial children (mean age 4.5 years) who scored above the clinical cut-off on the Eyberg. The programme was delivered in three formats over a 10-12 week period: (a) group administered video training, (b) self-administered video training, and (c) therapist led group discussion without the video examples. The ES, measured against a wait list control group, for each of the three training formats on reductions in total aversive child behaviours during home observations following training were 0.68, 0.51 and 0.69, respectively (Webster-Stratton, Kolpacoff & Hollinsworth, 1988). The authors found “no significant deterioration from immediate to 1-year follow-up assessments on any of the parent report or behavioral variables for any of the treatment groups” (Webster-Stratton, Hollinsworth & Kolpacoff, 1989, p. 551). A fourth study (Webster-Stratton, 1990b) compared the effects of the self-administered programme with and without therapist consultation and produced similar improvement with similar children. A fifth study (Webster-Stratton, 1994) measured the effects of adding the Advance programme with additional modules on parental anger management, communication and problem solving skills to the basic programme. This had little additional effect on child misbehaviour during home observations.
A sixth study measured the effects of a child training condition, both on its own and in combination with parent training. The child training condition (which is now called the Dina Dinosaur programme) consisted of 100 video vignettes, imaginative play activities, peer group problem solving activities, discussion with the teacher and individual activities spread over 22 weekly sessions. The activities were designed to teach the antisocial child to recognise other children's feelings, to pay attention to teachers, to comply and co-operate with others, how to control anger, how to cope with teasing, how to enter peer play, how to generate multiple solutions to a problem and how to use positive self-talk in difficult situations. The child training intervention had a similar effect to the parent training intervention in that it reduced total deviant child behaviour during home observations to less than 50 per cent of that observed prior to training. Combining the two interventions reduced total deviant behaviour to 22 per cent of baseline levels (Webster-Stratton & Hammond, 1997). It did, however, involve 132 hours of therapist time per group of 12 families.

The Incredible Years parenting training programme has been evaluated by at least two independent teams (Scott, Spender, Doolan, Jacobs & Aspland, 2001; Spaccarelli, Cotler & Penman, 1992).

**RCTs with parents of 6-8 and 8 to 12 year olds with elevated rates of antisocial behaviour**
A number of the randomised trials summarised below have recruited primary school aged children and their parents.

**RCTs with parents of teenagers with elevated rates of antisocial behaviour**
The Incredible Years programmes were not designed for use with older children and have not been trialled with older children and their families or teachers.

**RCTs with teachers**
One randomised control trial of the Incredible Years Teacher Professional Development Programme appears to have been undertaken (Raver, Jones, Li-Grining, Metzger, Champion, & Sardin, 2008). This involved 94 Head Start Teachers each of whom received 30 hours of training spread across 5 Saturdays. The report claims that teacher behaviour became more positive but there is no data on the children’s behaviour.

**RCTs with “minority” parents**
Small trials with Spanish speaking parents and Korean speaking parents in the US have been reported.

**RCTs with “hard to reach” or “high risk” parents**
There are three reports of attempts to work with “high risk” families within the context of a randomised trial.

Brotman, Klein, Kamboukos, Brown, Coard and Sosinsky (2003) recruited 30 families with preschoolers – families judged to be at high risk because at least one family member had a criminal record or Youth Court record or conduct disorder. Parents were paid for participation and received not only the Basic Preschool programme extended out to 50 sessions but also twice weekly coaching during a 30 minute play session with their child, and fortnightly home visits. In spite of this effort, few significant changes in parenting behaviour (apart from responsiveness) were observed and there were no significant effects on child behaviour.

Linares, Montalto, Li and Oza, (2006) recruited 64 children and their biological and foster parents (N = 128) from the caseload of an agency responsible for the foster placement of
abused and neglected children. The children were aged between 3 and 10 years. Biological and foster parents were randomly assigned in pairs to the intervention or a usual care condition. Intervention families received the 12-week group version of the Standard Incredible Years programme together with a newly developed co-parenting programme. Attendance was poor and minimal changes were observed in the behaviour of either the parents or the children.

Gross, Fogg, Webster-Stratton, Garvey, Julion and Grady (2003) recruited 208 parents and 77 preschool teachers of 2- to 3- year olds enrolled in day care centres serving low income families of colour in Chicago. Eleven centres were assigned to one of four conditions (1) parent training, (2) teacher training, (3) combined, (4) neither. Trained parents were observed to engage in more positive behaviours than untrained parents after 1 year. Otherwise few significant effects were observed. There were no training effects on observed child behaviour and the combined treatment did not have a greater effect on any measure than the parent training on its own.

**RCTs involving scaling up trials and trials outside the USA**

Randomised trials have been reported during dissemination efforts in England, Wales, and Norway. In the first English trial (Scott, 2005; Scott, Spender, Doolan, Jacobs, & Aspland, 2001), the participants were the families of 59 children aged 3- to 8-years who were referred as a result of their antisocial behaviour to child mental health services in London and Southern England. Parents received the School Age Basic Programme and were followed up after one year. No observations of parent or child behaviour were made. Because a wait list control was used the control families were not followed up. Scott (2005) reports an ES of .31 for pre- to follow-up changes on the conduct problems scale of the SDQ. This equates to a change from the clinical to the non clinical range – from 51% (30 of 59 children) to 22% of (15 of 59 children). Improvement was unrelated to the number of sessions attended.

In the second English trial (Gardner, Burton & Klimes, 2006), 76 families from three low income housing estates whose children were above the clinical cut-off score on the Eyberg Problem Scale were randomized into the 14 session School-Aged Basic programme or a wait-list control by NGP case workers. All sessions were video-taped for fidelity and discussed during weekly supervision meetings. Improvements in child conduct were substantial and were maintained at an 18 month follow-up (ES = .73). The proportion of children in the clinical range on the ECBI prior to training was 68% and at follow-up was 37%. Ninety percent of parents said they liked the intervention.

In the Welsh trial 153 parents were recruited from 11 Sure Start areas in north and mid-Wales. All children were aged between 3 and 4 years and were rated above the clinical cut off on the ECBI. A wait list control was used. Intervention consisted of the 12 week Preschool Basic Programme. Problem behaviour in children and parenting skills were assessed by parental report and by direct observation in the home. At follow-up, most of the measures of parenting and problem behaviour in children showed significant improvement in the intervention group. The intention to treat analysis of the Eyberg intensity scores yielded an ES of 0.89 with the number of children in the clinical range on the ECBI moving from 82% pre intervention to 42% at follow up (Hutchings, Bywater, Daley, Gardner, Whitaker, Jones, Eames, & Edwards, 2007). This project also included a small study of 9 children receiving the Dino Dinosaur programme (Hutchings, Bywater, Daley & Lane, 2007) but the sample is too small for any conclusions to be drawn.

In the Norwegian trial (Mørch, Clifford, Larsson, Rypdal, Tjeflaat, Lurie, et al. (2004), children with scores in the clinical range on the ECBI were recruited from one psychiatric...
clinic in Trømso and one in Trondheim. After two years, 127 children had been recruited. The Incredible Years trials tended to become “specialised enclaves” within the clinics due in part to fidelity requirements. Families were assigned to one of three groups: Parent Training, Parent Training plus Dina Dinosaur, and Control. The numbers of children in the Parent Training group scoring in the clinical range on the ECBI at pre-test, post-test and follow up were 69%, 38% and 27% and the numbers of children in the PT plus Child Training group scoring in the clinical range were 87%, 45% and 40% respectively. There is much in this report which is relevant to any widespread implementation of this programme in New Zealand.

Controlled case counts

At a 3-year follow-up of the Webster-Stratton, Kolpacoff and Hollinsworth (1988) study, the team classified treated children as successes if they were rated by their mother, their father, or their teacher as falling within the normal range on the Child Behaviour Checklist (or the Teacher’s Report Form of the CBCL). Using this criterion, 54% of children were classified as successes by their mothers, 75% as successes by their fathers, and 74% by their teachers (Webster-Stratton, 1990a).

Dissemination

Large scale dissemination efforts have been reported in England, Wales, and Norway. Incredible Years was introduced and trialed in Norway beginning in 1998 through the Ministry of Social Security and Health and the Universities of Trømso and Trondheim. The Incredible Years Basic parenting programme are currently being provided by Group Special Education, District Health Boards (and several other non-government organisations) in a number of New Zealand centres.

References


Appendix 1.3: Positive Parenting Programmes (Triple P)

John Church, PhD, School of Educational Studies and Human Development, University of Canterbury

Programme objectives

Triple P is a set of parenting and family education and support programmes that aim to prevent severe behavioural and developmental problems in children by enhancing the knowledge, skill and confidence of parents. The programmes can be operated at different levels depending upon the specific needs of those undertaking them.

Conceptual framework

The Triple P programmes draw on social learning theory, applied behaviour analysis, child development research, information processing models of the role of parental attributions and beliefs, and research into the risk and protective factors that are linked to adverse developmental outcomes in children.

Description of the interventions

Section 1: Level 4 Triple P

Triple P consists of five levels of intervention on a tiered continuum of increasing intensity. The Level 4 programme is the indicated intervention if the child has multiple behaviour problems in a variety of settings and there are clear deficits in parenting skills. Level 4 Triple P is available in three formats Standard Triple P, Group Triple P, and Self-Directed Triple P.

Standard Triple P is a 10-session programme in which the parents of 3- to 8-year old children with antisocial behaviour problems are taught about the causes of children’s behaviour problems, strategies for encouraging children’s development and strategies for managing misbehaviour. These include monitoring skills, spending quality time, teaching skills, how to encourage desirable behaviour (e.g. by providing engaging activities, praise, and contingent attention), and how to manage misbehaviour (using rules, planned ignoring, clear calm instructions, logical consequences, quiet time, and time out). Parents are trained to use these skills in the home and in the community. Segments from Every Parent’s Survival Guide video may be used to demonstrate positive parenting skills. Home visits or clinic observation sessions are also conducted in which parents self-select goals to practise, are observed interacting with their child and implementing parenting skills, and receive immediate feedback from the therapist. Further clinic sessions then cover how to prevent problems in high-risk situations using planned activity routines, incentives, and rewards. Finally, maintenance and relapse issues are covered. Sessions last up to 90-minutes each (with the exception of home visits, which last 40–60 minutes each).

Group Triple P is an 8-session version of the Standard programme, usually conducted in groups of 10 to 12 parents. It includes four 2-hour group sessions, which provide opportunities
for parents to learn through observation, discussion, practise and feedback. Segments from *Every Parent’s Survival Guide* video are used to demonstrate positive parenting skills. These skills are then practised in small groups. Parents receive constructive feedback about their use of skills in a supportive context. Between sessions, parents complete homework tasks to consolidate their learning from the group sessions. Following the group sessions, three 15- to 30-minute follow-up telephone sessions provide additional support to parents as they put into practice what they have learned in the group sessions. The final session covering skill generalisation and maintenance may be offered as a group session and celebration, or as a telephone session, depending upon resources.

**Self-Directed Triple P** is a delivery mode in which information is provided in a parenting workbook, *Every Parent’s Self-Help Workbook*. This provides a 10-week self-help programme for parents. Each weekly session contains a series of set readings and suggested homework tasks for parents to complete. This format was originally designed as a control treatment for clinical trials. However, positive reports from families showed this programme to be an intervention with important effects in its own right. If parents seek more support, the self-help program may be augmented by weekly 15 to 30-minute telephone consultations. Self-Directed Triple P can be used with families where access to clinical services is poor (e.g., families in rural or remote areas).

**Section 2: Targeted versions of Triple P**

Several versions of the Level 4 Triple P programmes have been developed for parents with special types of needs. These include versions for the parents of children with disabilities, parents at risk of child maltreatment, parents of obese and overweight children, indigenous parents, and parents of teenagers.

**Stepping Stones Positive Parenting Programme.** Stepping Stones Triple P is an adaptation of Level 4 Triple P specifically designed for parents of children with both developmental disabilities and elevated rates of problem behaviour across multiple settings.

**Pathways Positive Parenting Programme.** Pathways Triple P is an adaptation of Level 4 Triple P which has been designed for parents who have been referred as parents who are at risk of child maltreatment.

**Lifestyle Positive Parenting Programme.** Lifestyle Triple P is an adaptation of Level 4 Triple P which has been designed for the parents of obese and overweight children.

**Indigenous Positive Parenting Programme.** Indigenous Triple P is a version of the Level 4 programme which has been designed for Australian Aboriginal parents.

**Teen Triple P** is a version of the Level 4 programme which has been designed for parents of teenagers who are engaging in antisocial or problem behaviour in more than one setting.

**Section 3: Enhanced Triple P**

**Enhanced Triple P** is a Level 5 programme designed for families that have not changed as a result of the Level 4 intervention. It consists of up to 11 sessions designed to extend the focus of intervention to include self-regulation skills and communication skills. There are three modules each of which lasts for up to three 90-minute sessions (with the exception of home visits, which last 40–60 minutes each). Module 1, Home Visits, teaches goal setting and self-
evaluation skills. Module 2, Coping Skills, teaches relaxation, mood management skills, stress management skills and how to plan for high risk situations. Module 3, Partner Support, teaches personal communication skills, how to give and receive constructive feedback, how to support each other when problem behaviour occurs, problem solving skills and relationship enhancement skills. Within each additional module, the components to be covered with each family are determined on the basis of needs identified by the family.

Section 4: Population versions of Triple P

The first three levels of Triple P have been designed as population level (universal) programmes.

Level 1 Triple P is a universal parent information strategy designed to provide parents with access to useful information about parenting through a coordinated media campaign using parenting tip sheets, videotapes, TV broadcasts and articles in the popular press which demonstrate specific child management, teaching and parenting strategies which all parents can use. It aims to increase population awareness of parenting resources and to increase the receptivity of struggling parents to the idea of participating in parenting programs.

Level 2 Triple P is a brief, one to two-session primary health care intervention that provides early anticipatory guidance to parents of children with mild behaviour problems. It has been designed specifically for professionals such as social workers, public health nurses, GPs and so on. Level 2 Triple P has a major role to play in ensuring that every parent who seeks advice or assistance receives something more than just a referral or placement on a waiting list.

Level 3 Triple P is a four-session intervention targeting children with one or more specific mild to moderate behaviour problems. It includes active skills training for parents. Level 3 Triple P has been designed for professionals who work with the parents and the teachers of children with behaviour problems but whose behaviour problems do not meet the diagnostic criteria for conduct disorder or antisocial development.

Resources

The catalogue of resources for Triple P training is extensive. These resources include practitioner manuals for Standard Triple P (Sanders, Markie-Dadds & Turner, 2001), Group Triple P (Turner, Markie-Dadds & Sanders, 2002), Stepping Stones Triple P (Sanders, Mazzucchelli & Studman, 2003a), Pathways Triple P (Pidgeon & Sanders, 2005: Sanders & Pigeon, 2005a, 2005b, 2005c), Enhanced Triple P (Sanders, Turner & Markie-Dadds, 1998), and Teen Triple P (Sanders & Ralph, 2001).

There are also consultant flip charts for Primary Care Triple P (Turner, Markie-Dadds & Sanders, 1999a) and Primary Care Teen Triple P (Ralph & Sanders, 2001).

Parent workbooks have been produced for Group Triple P, Self-Directed Triple P and Enhanced Triple P (Markie-Dadds, Sanders & Turner, 1998a, 1999, 2000a).

A range of training videos have been prepared for use with Standard and Group Triple P (Sanders, Markie-Dadds & Turner, 1996b, 1996c, 1996d, 2004a, 2004b; Sanders, Turner & Markie-Dadds, 1996; Turner, Markie-Dadds & Sanders, 2000a, 2000b), with Stepping Stones Triple P (Sanders, Mazzucchelli & Studman, 2003c), with Enhanced Triple P (Markie-Dadds, Sanders & Turner, 2000b, 2000c) and with Teen Triple P (Sanders & Ralph, 2001).
Also available are extensive published reference materials for the parents of preschoolers, school aged children, and teenagers. These include books on parenting (Sanders, Markie-Dadds & Turner, 1996a), tip sheets (Markie-Dadds, Sanders & Turner, 1998b; Sanders & Turner, 2003) and wall charts (Turner, Markie-Dadds & Sanders, 1999b).

Evidence of effectiveness

Triple P has been more extensively evaluated than any other parenting training programme. At the time of writing, some 29 randomised control trials with follow up data had been reported in the peer reviewed literature. In the great majority of cases, follow up data demonstrates that changes in parent and child behaviour have been maintained over 6 to 24 month periods. A majority of the randomised trials have involved the parents of preschool children and most of the randomised trials have used a parent completed rating scale, the Eyberg Child Behaviour Inventory (ECBI), as the common measure of child behaviour change. Of the 11 RCTs reviewed by Thomas and Zimmer-Gimbeck (2007), four included direct observations of child behaviour change and the effect size for the direct observation measure was in every case considerably less than the effect size on the parent completed ECBI.

Single case analyses of parent and child behaviour change

A number of the empirical studies undertaken during the Triple P development phase demonstrated the effects on parent and child behaviour of training in particular parenting skills and their generalisation from the training setting to a second non-training setting (e.g. Dadds, Sanders & James, 1987; Sanders & Dadds, 1982; Sanders & Plant, 1989).

RCTs with the parents of preschoolers with conduct problems

Most of the randomised control trials of the effects of Level 4 Triple P with the parents of preschoolers have produced similar results. The RCT by Sanders, Markie-Dadds, Tully and Bor (2000) is typical. This trial involved 305 3-year olds and their parents. Child negativity scores were calculated from videos of the child completing several structured tasks under the mother's direction. A group who received the Standard Triple P programme showed changes on most measures. The pre- to post-training ES on ECBI scores was 1.0, the ES on Parent Daily Report scores was .87 and the ES on observed child negativity was 0.21 immediately following treatment. The Enhanced Triple P programme produced an ES on Eyberg scores of 0.9, an ES on PDR scores of .86 and an ES on observed child negativity of 0.44. At a 12 month follow-up, total child negative behaviour on the structured tasks was considerably lower than it had been immediately post treatment. The improvements in child behaviour observed at the 1 year follow-up were maintained at a 3-year follow-up (Sanders, Bor & Morawska, 2005). A similar result was reported by Bor, Sanders and Markie-Dadds (2002). Significantly improved ECBI ratings of preschool child behaviour have also been reported by rural parents following completion of Self-Directed Triple P (Connell, Sanders & Markie-Dadds, 1997; Markie-Dadds & Sanders, 2006).

RCTs with the parents of 6- to 8-year olds with conduct problems

A number of RCTs involving samples which include children in the 6- to 8-year age range have demonstrated significant, sustained reductions in parent reported antisocial child behaviour following Standard Triple P and Enhanced Triple P parenting training (e.g. Connell, Sanders & Markie-Dadds, 1997; Martin & Sanders, 2003; Sanders & McFarland, 2000).
RCTs with the parents of 8- to 12-year olds and teenagers with conduct problems
A version of Triple P designed for the parents of teenagers who are making the transition to high school is available and two trials of this programme have been reported. However neither of these trials involved the parents of teenagers who had been diagnosed as meeting the criteria for conduct disorder or antisocial development.

RCTs with the parents of children with developmental disabilities
RCT evaluations of Triple P have included studies of parents with children with both developmental disabilities and behaviour problems and have demonstrated similar levels of sustained improvement in child behaviour (Plant & Sanders, 2005; Roberts, Mazzucchelli, Studman & Sanders, 2005).

RCTs with parents of varying ethnicity
A replication in Hong Kong of the effects of Standard Triple P with Chinese parents who reported concerns about disruptive behaviour in their 3- to 7-year old children produced improvements in parent reported child behaviour similar to those observed in Australian samples (Leung, Sanders, Leung, Mak & Lau, 2003). A randomised clinical trial has also been undertaken with a sample of Aboriginal parents (Turner, Richards, & Sanders, 2005). Research design and effects were similar to those observed for other Triple P evaluations.

RCTs with “hard to reach” parents
Sanders, Pigeon, Gravestock, Connors, Brown and Young (2003) compared the effects of Group Triple P and Group Triple P plus an attribution retraining and anger management module in a large sample (N=98) of parents notified for child abuse or neglect and parents who were concerned that they might harm their child. Parents in both treatments showed significant, sustained improvements on a number of measures of risk, marital conflict, and direct observations of child behaviour.

RCTS with parents with significant personal problems
Early studies found a high relapse rate following Standard Triple P interventions with parents experiencing high levels of marital discord and a reduced relapse rate when partner support training was added to the Standard Triple P (Dadds, Schwartz & Sanders, 1987). Later studies have demonstrated large and sustained reductions in observed or parent reported antisocial child behaviour following Enhanced Triple P with parents and step parents in reconstituted families (Nicholson & Sanders, 1999); mothers with major depression (Sanders & McFarland, 2000), and with parents reporting high levels of marital conflict (Ireland, Sanders & Markie-Dadds, 2003).

Controlled case counts
Cann, Rogers and Matthews (2003) in an analysis of the outcomes resulting from Triple P programmes provided to 570 mothers by the Victorian Parent Centre, report that 45% of referred children (mean age 4.5 years) were found to be in the clinical range for child behaviour problems on the ECBI prior to intervention while only 12% were found to be in the clinical range following participation in a Triple P programme. This is a success rate of 73%.

In the Sanders et al. (2000) comparison of the effects of three versions of Triple P described above, the proportion of children whose scores on the ECBI moved from the clinical into the normal range between pre-intervention and 1-year follow up was 61% for families receiving Enhanced (Level 5) Triple P, 52% for families receiving the Standard (Level 4) Triple P, and 47% for families who received the Self-Directed (Level 4) Triple P intervention.
Elsewhere the Sanders group have calculated the change in prevalence from pre-intervention to follow-up and report that the reduction in prevalence which results from Triple P (when averaged across Level 3, 4 and 5 interventions and compared against that of waitlisted controls) is 26% when measured by the ECBI and 48% when measured by the Parent Daily Report (Mihalopoulos, Sanders, Turner, Murphy-Brennan & Carter, 2005).

**Scaling up trials of Level 4 and Level 5 Triple P**

One large scaling up trial has been reported (Zubrick, Ward, Silburn, Lawrence, Williams, Blair, Robertson & Sanders, 2005). This employed a between groups design to measure the effects of Group Triple P with all the families of 3- to 4-year old children (N=1,615) in the Eastern and Southern Metropolitan Health Regions of Western Australia (with the Southern Region designated as the control). Children in the intervention group showed significant decreases in parent-reported disruptive child behaviour following intervention which maintained at 12- and 24-month follow ups. Two years following intervention there was a 37% decrease in the prevalence of child behaviour problems in the intervention region.

A universal intervention trial is also being undertaken in Germany but there appear to be no reports available in English yet.

**Dissemination**

Dissemination trials have been reported for Queensland, Western Australia, Sydney, Glasgow, Hong Kong and Germany. Triple P facilitator training has been provided in New Zealand for a number of years.

**References**


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Appendix 1.4: Parent-Child Interaction Therapy (PCIT)

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Programme Goals
The primary aim of Parent Child Interaction Therapy is to replace maladaptive parent-child interactions with positive interactions by teaching parents to respond consistently to appropriate child behaviour with positive consequences (such as descriptive praise) and to inappropriate, coercive, and antisocial behaviour with non-reinforcing consequences (such as ignoring and time out).

Conceptual Framework
Parent-Child Interaction Therapy is an application of G. R. Patterson’s social learning theory of family functioning which, in turn, is an application of the Principles of Behaviour. “Principles of Behaviour” is the name of the theory of learning developed by behaviour analysts as a result of their research into the conditions which govern motivation, performance and learning in children and adults. PCIT has been influenced by developmental theory in its adoption of play therapy as the delivery mechanism for parenting training. Eyberg also argues that PCIT has been influenced by attachment theory (Herschell, Calzada, Eyberg & McNeil, 2002).

Description of the Intervention
The development of Parent-Child Interaction Therapy is usually credited to Sheila Eyberg. It is, however, very closely similar to the parenting training procedures first developed by Forehand and McMahon which they called Helping the Non-Compliant Child (Forehand & McMahon, 1981; McMahon & Forehand, 2003). The main difference is that the Forehand and McMahon version was designed for the parents of non-compliant 3- to 8-year old children and the Eyberg version was designed for the parents of non-compliant 2- to 6-year old children and uses somewhat different play activities. Several different versions of HNC and PCIT have been developed to meet the needs of different kinds of families with antisocial children in the age range 3 to 8 years.

Section 1: Standard Parent Child Interaction Therapy

Standard PCIT involves a number of sessions in which the parent or parents engage in a number of structured play activities with their child. This usually takes place in a clinic setting with a one-way mirror and observation room. However, has been conducted without the one-way mirror set up and in the home situation instead of the clinic. A caravan has been fitted-out for PCIT for use in rural areas. The parent is ‘coached’ by the therapist from the observation room using a radio microphone and ‘bug in the ear’ receiver. Parenting training occurs in two parts.

1. Child-directed interaction. The first part (CDI) starts with two teaching sessions during which the therapist describes the skills to be practiced and explains why these particular skills have been selected. This is followed by five to six coaching sessions involving age appropriate
play activities which have been selected by the child. The aim of these sessions is to build a positive and warm relationship between child and parent(s), to increase the parent’s ability to provide social reinforcement by following the child’s lead in play, by providing strategic attention and by providing descriptive praise (e.g. “I like how you put the toys away”). The therapist provides coaching and feedback in how to talk with their child, how to prompt desired behaviour and how to respond to appropriate child behaviour using praise, reflection, imitation, description and enthusiasm at high rates while avoiding questions, commands, and criticism. During these sessions the therapist collects observational data for part of each session. Parents are expected to practice the skills at home and to record their own behaviour. The data from the clinic observations and the home parent reports are discussed with the parent to demonstrate the impact which their behaviour is having on their child’s behaviour.

2. Parent-directed interaction. Once the parent’s CDI level meets a predetermined criterion, the PDI phase begins. In this phase parents are taught how to give clear, direct and age-appropriate commands and how to provide consistent consequences for compliance and non-compliance. In addition to the previously acquired positive reactions to compliance, parents are taught how to use time-out as a consequence for non-compliance. These skills are taught using instruction, role playing, modelling and feedback during the play sessions.

CDI and PDI sessions are usually once or twice a week for 60 to 90 minutes – at a time which fits the parent’s schedule. PCIT continues until the therapist observes that the parent is proficient in their new skills, therapist observations and parental reports confirm that the child’s behaviour remains in the normal range, and the parents feel competent to end the treatment. Most parents achieve this goal after 10 to 16 1-hour sessions. Follow-up sessions are recommended as are booster sessions if these are found to be needed.

Abbreviated Parent-Child Interaction Therapy
A short version of PCIT has been developed. In the short version, the two initial teaching sessions are replaced by a video which the parents view at home and the number of coaching sessions is reduced to five. Each of coaching session alternates with a 30 minute telephone consultation.

Section 2: Targeted versions of Parent-Child Interaction Therapy

PCIT for maltreating parents
PCIT for maltreating parents runs for 22 to 26 sessions. It begins with six preliminary sessions in which parents watch videotaped testimonials from previous participants, receive information about motivation and the effects of behavioural consequences, engage in exercises to improve decision making, take part in cognitive behaviour therapy designed to change motivational cognitions and increase self-efficacy, and engage in activities designed to increase understanding of the consequences of child abuse. Participants prepare personal statements of their beliefs about parenting, their parenting practices, and their personal goals for therapy. These activities are completed before beginning PCIT. This is followed by the CDI and PDI components of standard PCIT and by a 4 week group intervention designed to enhance generalisation and maintenance.

Enhanced Parent-Child Interaction Therapy
This version of PCIT has been designed for parents with substance abuse, depression, or marital problems. It runs for 22 to 26 sessions. It is similar to the version for maltreating
parents and includes individual counselling and/or therapy for depression and/or for marital problems and/or for substance abuse problems. The standard PCIT is supplemented by home visits during which the therapist coaches the parent during both free play situations and parent management situations and works with the parent to develop a behaviour plan which can be implemented in the home. Parents are required to meet criterion during these home visits in order to progress to the next phase.

Resources

Training materials. The following resources are typically provided during training, and are included in the training costs. Many materials can now be downloaded from the PCIT website at the University of Florida.


Therapy rooms. Generally, PCIT requires a therapy room with a selection of toys and games together with an adjoining observation room and a seating area. A caravan has been fitted out in the US for use in remote areas.

Radio microphones and receivers. The CAARE Center at the University of California at Davis Medical School has developed systems that can be installed in the therapy rooms or portable, battery-pack ‘bug in the ear’ systems that can be used in the home as well as in the therapy room.

Video observation. PCIT requires the therapist to video sessions for discussion with the parents. This requires a video camera in the therapy room and a viewing monitor in the observation room.

Staff training. In New Zealand, PCIT is used at GSE Canterbury and training is conducted in-house. There are four phases to the PCIT therapist training programme.

1. Program development and equipment set up.
2. Training in fundamentals – 16 hours of training to introduce the foundations of PCIT.
3. Skills building – 16 hours of training to observe live PCIT cases, to work with an experienced clinician on case treatment goals and objectives and to develop assessment and coaching skills.
4. Live consultation and supervision. The final phase involves working with parents under supervision for 14 to 20 weeks or until the novice therapist demonstrates competence in assessment, CDI coaching, PDI coaching, and so on. Therapists who have met the above requirements are then able to train others.
Evidence of Effectiveness

Early evaluations of *Helping the Non-Compliant Child* (Breiner & Forehand, 1981; Forehand et al., 1979; Forehand, Wells & Griest, 1980) found that this type of training produced reliable reductions in vague commands, increases in parental attention to and/or rewards for appropriate behaviour, and increases in child compliance during observations in the home, but not the classroom, at follow-ups 2 to 12 months following training. One of the most interesting results of the research on HNC was the discovery that parenting skills training resulted in changes in the parent's perception of their child's behaviour - but that this change occurred as a result of the training (and improvement in child behaviour) and followed training with a delay of about 2 months (Forehand, Wells, & Griest, 1980). This finding contradicted the widely held belief that, in order to improve the parenting skills of parents with unrealistic beliefs about their child, it is necessary first to change the parent's beliefs.

The inclusion of components designed to enhance marital adjustment, personal adjustment and the parents' extra-familial relationships resulted in small increases in the maintenance of improved child behaviour (Griest, Forehand, Rogers, Breiner, Furey & Williams, 1982). Long term follow-ups of 43 families from these early studies 8 years later (Forehand & Long, 1988) and 15 years later (Long, Forehand, Wierson & Morgan, 1994) sought to establish that the majority of treated children made normal transitions into adolescence and adulthood. However, interpretation of this data is complicated by the fact that the original studies had no control group and by the fact that half of the original families could not be traced. A recent study (Rotto & Kratochwill, 1994) involving six parents provides a clear demonstration of the effects of parent training on parent behaviour and the close correspondence between changes in parent behaviour and changes in child compliance.

**Single case analyses of the effects of Parent-Child Interaction Therapy**

A number of single case evaluations of PCIT have extended the findings of the HNC studies to demonstrate the effects of PCIT training on parent and child behaviour in a range of referred children including a child with ADHD (Johnson, Franklin, Hall & Prieto, 2000), children with intellectual disabilities (Bahl, Spaulding & McNeil, 1999), families referred as a result of child physical abuse (Borrego, Urquiza, Rasmussen & Zebed, 1999; Dombrowski, Timmer, Blacker & Urquiza, 2005) and maltreated children in foster care (Fricker-Elhai, Ruggiero, & Smith, 2005; Timmer, Urquiza, Herschell, McGrath, Zebell, Porter et al., 2006). In a case by case study of 15 children with co-morbid ODD and separation anxiety disorder Chase and Eyberg (2008) report that PCIT produced clinically significant reductions not only in disruptive behaviours but also in internalised anxiety symptoms.

**RCTs with parents of 3- to 7-year olds with conduct problems**

A review of PCIT evaluations by Thomas and Zimmer-Gimbeck (2007) identified 13 evaluations of 8 cohorts of non-compliant children and their parents undertaken by three research groups. The Eyberg/McNeil group at the University of Florida have studied six cohorts of non-compliant children and their parents (Brestan, Eyberg, Boggs & Algina, 1997; Eyberg, Boggs & Algina, 1995; Hood & Eyberg, 2003; McNeil, Capage, Bahl & Blanc, 1999; Schuhmann, Foote, Eyberg, Boggs & Algina, 1998). The second group, the Nixon group at the University of Sydney, have studied one cohort (Nixon, 2001; Nixon, Sweeney, Erickson & Touyz, 2003; Nixon, Sweeney, Erickson & Touyz, 2004). The work of the third group, the Chaffin group at the University of Oklahoma, who studied the eighth cohort will be discussed in a later section of this review.
The main outcome measures used by all three research groups have been a rating scale which is completed by the mother, the ECBI (Eyberg & Pincus, 1999), and a direct observation system, the Dyadic Parent-Child Interaction Coding system (DPICS). The ECBI has been used in the trials for all 8 cohorts and direct observations have been collected in the trials for 5 cohorts. Generally speaking, children have been selected into the PCIT trials if they have received a maternal rating on the ECBI in the clinical range.

The main results of the Thomas and Zimmer-Gimbeck (2007) review of changes in parent behaviour are as follows. Clinic observations of parent behaviour showed large reductions in negative behaviour and large increases in positive behaviour across studies. The mean effect sizes \((d)\) for changes in negative and positive behaviour in the pre-post comparisons (6 cohorts) were \(-1.46\) and \(+1.15\) respectively and in the PCIT vs waitlist control studies (4 cohorts) were \(-0.76\) and \(+3.66\) respectively.

The main results of the Thomas and Zimmer-Gimbeck (2007) review of changes in child behaviour are as follows. For pre-post comparisons (5 cohorts) the average effect sizes \((d)\) for clinic observations of changes in child negative and positive behaviour were \(-0.54\) and \(+0.94\) respectively and the mean effect size for changes in mean parent ratings on the ECBI was \(-1.31\). For treatment vs waitlist comparisons (4 cohorts) the average effect sizes \((d)\) for clinic observations of child negative and positive behaviour were \(0.11\) and \(0.61\) respectively and the mean effect size for changes in parent ratings on the ECBI was \(-1.45\). Parent ratings on the ECBI almost always generate a greater effect size than that generated by direct observation measures.

Several evaluations have attempted to see whether PCIT produces an improvement in child compliance in the school setting but these studies have produced inconsistent results (Funderburk, Eyberg, Newcomb, McNeil, Hembree-Kigin & Capage, 1998; McNeil et al., 1991).

One long term follow up has been reported (Hood & Eyberg, 2005). It is a follow up 3 to 6 years post treatment of 23 of 50 mothers from the Schuhmann et al. (1998) trial. Following treatment 16 of the 23 children in the follow up had moved from the clinical range to the normal range on the ECBI and, of these, 13 remained in the normal range at follow up.

**RCT evaluation of Abbreviated PCIT**

A comparison of the effects of Abbreviated PCIT against the effects of 12 sessions of Standard PCIT post treatment and at 1 and 2 year follow-ups showed that although the Abbreviated PCIT tended to have a weaker effect on many measures its overall effect on positive and negative parent behaviour and on child compliance was much the same as that of the Standard PCIT at the 1 and 2 year follow ups (Nixon et al., 2003, 2004). It should be noted however that the Standard PCIT condition was limited to 12 sessions rather than continuing for each parent until that parent met the criterion for proceeding to the next step.

**RCTs with maltreating parents and with foster parents**

Three research teams are engaged in evaluating the utility and effectiveness of adapted versions of PCIT as treatments for parents referred for physical abuse of their children Chaffin et al., 2004; McNeil, Herschell, Gurwitch, & Clemens-Mowler, 2005; Timmer, Urquiza, Zebell & McGrath, 2005).

The Chaffin et al. evaluation was a randomised trial which compared the effectiveness of Standard PCIT, Enhanced PCIT for maltreating parents and a community based treatment with
parents (including step and foster parents) of children aged 4 to 12 years referred following police-confirmed physical abuse (N=110). The therapy was conducted in English and Spanish. All three treatments reduced reported physical abuse and the conduct problem scores of children. At 2 year follow-up, 19% of parents assigned to PCIT had a re-report for physical abuse compared with 35% assigned to Enhanced PCIT and 49% of parents assigned to the community based treatment. Similar results were obtained at a 3-year follow up. Surprisingly, the enhancements in the Enhanced PCIT did not result in enhanced effects on the outcomes measured. In a meta-analysis of treatments for maltreating foster parents (Asawa, Hansen & Flood, 2008), PCIT is identified as the most effective clinic treatment.

The Timmer et al. (2005) study was a 2-phase pre-post evaluation of 307 clinic referred children with conduct problems of whom 193 were also being maltreated by their primary biological parent and 114 were not. Phase 1 measured drop out. Drop out reduced the sample of 193 maltreated children to 93 and the sample of 114 non-abused children to 45. Maltreating parents whose children had the most behaviour problems were most likely to drop out or, if not drop out, report little effect on their child’s behaviours (even if observations showed behaviours had changed). Phase 2 measured the effects of completing PCIT to criterion during both the CDI and PDI sessions. Only parental reports on the ECBI and CBCL were collected with both groups of parents reporting similar and significant improvements in child behaviour as a result of PCIT.

The McNeil at al. (2005) study was a pre-post evaluation of the effects of PCIT with foster parents (N=30) with a child with severe conduct problems. PCIT was delivered in an intensive two-day group training programme. Effects were similar to those observed with biological parents in that parent reported conduct problems were reduced to sub clinical levels in all cases with this change being maintained at follow up.

RCTs with parents of children with conduct problems and developmental delays
The research on PCIT includes one wait list trial involving children with both conduct problems and intellectual disabilities (Bagner & Eyberg, 2007) and one trial with children with both conduct problems and high functioning autism (Solomon, Ono, Timmer & Goodlin-Jones, 2008).

Participants in the Bagner and Eyberg study were 15 plus 15 children with a diagnosis of both ODD and mild or moderate MR (without sensory impairments or autism) living with a parent with an IQ above 75 and no history of child abuse. Parents received Standard PCIT delivered by two co-therapists. The average number of sessions was 12. Improvements in parent reported ECBI scores ($d = .66$) and improvements in observed child compliance ($d = 1.53$) were similar in size to those observed in previous studies. The authors conclude that “the disruptive behavior of children with MR appears to respond to treatment in the same way as the disruptive behavior of non-delayed children” (Bagner & Eyberg, 2007, p. 426).

Participants in the Solomon et al. (2008) study were 10 plus 9 children aged 5 to 12 years with clinically significant levels of conduct problems, a diagnosis of autism, an IQ above 70 on the Weschler Abbreviated Scales of Intelligence for children, and enough expressive language to take part in the intervention. Few changes in child behaviour were observed as a result of the PCIT intervention.

RCTs with parents of varying ethnicity or culture
McCabe, Yeh, Garland, Lau, and Chavez, (2005) describe an RCT with 54 Mexican parents randomly assigned to standard PCIT, a version of PCIT rewritten for Mexican parents
Guiando a Ninos Activos), and a treatment as usual control. The Mexican version added a
provision for all family members to participate in PCIT because developmental work had
shown that parenting was viewed as a collective function which needed to include fathers,
grandfathers and other family members. Only Guiando a Ninos Activos produced changes on
the ECBI and CBCL which were significantly better than the treatment as usual control.
McCabe et al. report that Mexican American parents use much harsher forms of punishment,
and do not believe that “sitting in a chair” will work when harsher methods have failed.

Preliminary reports of PCIT development and evaluation work with parents in Hong Kong and
Puerto Rico have been published. Tsang & Leung (2007) describe a PCIT trial with 48 plus 62
Chinese parents in Hong Kong. “The results indicated that after intervention the intervention
group participants reported lower child behaviour problem and parenting stress scores than the
comparison group participants. The effect sizes ranged from 0.97 to 1.59” (Tsang & Leung,
2007).

Preliminary work on a Puerto Rican version of PCIT has also been reported by Matos, Torres,
Santiago, Jurado and Rodríguez (2006). Matos et al. report that the most problematical aspects
of PCIT for Puerto Rican parents were the instruction to ignore misbehaviour (which parents
felt was “doing nothing”) and time-out (which parents felt was a form of abandonment).

Dissemination

Some PCIT therapist training is occurring in Hong Kong, England, Russia, Canada, the
Netherlands, Norway, Australia and New Zealand. The CAARE Centre at the University of
California Davis report that they have trained therapists in 44 cities in four states: California,
Washington, Alaska and Maryland. Therapists report feeling competent after completing a
median of 5 cases (Porter, Timmer, Urquiza, Zebell & McGrath, 2008). Data on cost
effectiveness have been provided by Goldfine, Wagner, Branstetter and McNeil (2008).

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Appendix 1.5: School Wide Positive Behaviour Support (SW-PBS)

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Programme Development

School Wide Positive Behaviour Support began life as Project PREPARE, a school wide discipline plan developed by Geoff Colvin, George Sugai and others at the University of Oregon (Colvin, Sugai & Kameenui, 1993; Colvin, Kameenui & Sugai, 1993). Within a few years it had been renamed Effective Behavior Support (Colvin, Martz, DeForest & Wilt, 1995). Starting around 2002, the EBS programme underwent another name change and is now known as School Wide Positive Behavior Support (Horner, Sugai, Todd & Lewis-Palmer, 2005; Lewis, Powers, Kelk & Newcomer, 2002).

Programme goals

The primary goals of School Wide Positive Behaviour Support are to reduce antisocial behaviour, to prevent the development of further inappropriate behaviour, and to increase the likelihood of improved social behaviour and academic performance in all students.

SW-PBS utilises a three-tier model that includes primary (school-wide), secondary (classroom), and tertiary (individual) intervention levels (Freeman et al., 2006; Sugai & Horner, 2006). The primary aims of the school wide programme are to (a) redesign the school environment to reduce problem behaviour, (b) teach new skills to reduce problem behaviour, (c) rigorously reward appropriate behaviour while withholding rewards for problem behaviour, and (d) put in place active and on-going data collection systems and to use this data to guide changes to school, community, and home settings.

Universal interventions at the primary prevention level involve changes to the school system. The aim of intervention at this level is to reduce the number of new cases of problem behaviour and academic difficulties while increasing as many appropriate behaviours as possible in all students.

Interventions at the secondary, or classroom, level target the 5% to 15% of students who are considered at-risk of antisocial development and/or academic skill deficits and who are not responding to primary level prevention efforts. The aim of secondary level interventions is to reduce current cases of problem behaviour and academic failure by using specialised group interventions such as behavioural contracts, conflict resolution training, pre-correction strategies, self-management strategies, and remedial academic programs.

Tertiary level interventions (which are not considered in this review) are designed for individual students who engage in chronic antisocial behaviours which impede learning, are dangerous or disruptive, and/or result in social or educational exclusion. Although only 1 to 5 per cent of the school population, these students account for 40% to 50% of behavioural disruptions (Gresham, 2005). The goals of tertiary level interventions are two fold: (a) to identify and diminish the frequency and intensity of antisocial behaviours and (b) to increase
the student’s adaptive skills using functional behaviour analysis to generate effective behaviour support and teaching plans for the individual student.

Conceptual framework

Most of the intervention elements which form School Wide Positive Behaviour Support are applications derived from the principles of behaviour. “Principles of behaviour” is the name of the theory of learning developed by behaviour analysts as a result of their research into the conditions which govern motivation, performance and learning in children and adults. SW-PBS also includes elements derived from systems theory and some unique elements suggested by the data from large numbers of implementation trials in diverse school settings.

A central feature of SW-PBS is that teachers are trained over a period of many months to treat recurring misbehaviours in the same way that they treat recurring academic mistakes, that is, as learning which has yet to occur and which needs a teaching objective, descriptions and demonstrations of what is expected, practice opportunities, feedback, monitoring, and reinforcement for improvement.

Description of the Interventions

School Wide Positive Behavior Support uses a systems approach to establishing the social culture needed for schools to achieve social and academic gains while minimizing problem behaviour for all students. It is not a specific curriculum, practice or set of interventions, but a decision making framework that guides the selection, integration, and implementation of evidence-based practices for improving behaviour outcomes and academic outcomes for all students.

The universal element of SW-PBS is designed as a proactive approach to behaviour management involving school-wide teaching of social skills and behaviour, school-wide reinforcement of desired behaviour, consistent management of inappropriate behaviour and professional development for all staff in how to implement and sustain the programme. The programme involves five core strategies.

1. The prevention of problem behaviour in all areas of the school so that the need for reactive responding is very greatly reduced.
2. The systematic teaching of appropriate social behaviour and skills whenever and wherever the need arises. This involves defining core social expectations (e.g., be respectful, be responsible, be safe) and explicitly teaching the behaviours and skills needed to meet these expectations so that everyone in the school has the same expectations and the same knowledge regarding how to meet those expectations.
3. Regular and frequent acknowledgement of appropriate behaviour and a consistent response to rule violations in all settings. The aim is to achieve a ratio of 8 positive acknowledgements for each disciplinary statement and to be consistent in the use of a continuum of consequences for problem behaviour (e.g., correction, warning, office discipline referral).
4. The collection of data about student behaviour and the use of that data to guide behaviour support decisions.
5. An investment in the systems (e.g., teams, policies, funding, administrative support, data structures) that are needed to sustain the new structure and effective practices.

Implementation of SW-PBS in a school involves a number of steps

- Establishing a school-wide PBS team that has the task of implementing and updating school-wide discipline systems.
- Ensuring buy-in from all of the teachers in the school.
- Defining and teaching 3-5, positively stated school-wide behavioural expectations.
- Establishing a system to acknowledge students regularly for behaving appropriately.
- Establishing a set of consequences for inappropriate behaviour and implementing those consequences consistently.
- Collecting and reporting office discipline referral data weekly to the behaviour support team and monthly to all teachers.

Typically, a school team consists of five to seven individuals. Members of the team receive three, 1- to 2-day training events each year for two years.

**Resources**

Resources are available from the OSEP Center on Positive Behavioral Interventions and Supports at http://www.pbis.org. Resources include an overview of SW-PBS (Sugai and Horner, 2006), an implementation manual (Center on Positive Behavioral Interventions and Supports, 2004), implementation checklists (Sugai, Horner, & Lewis-Palmer, 2002) and a list of published and in-press research reports. Increasing numbers of US State Departments of Education are including SW-PBS resources on the teaching resources sections of their web sites.

As implementation spreads, researchers have begun to develop instruments to assess implementation fidelity. Three such instruments are currently available. All three have been the subject of some initial validity and reliability studies. The three instruments are:

- the School-Wide Benchmarks of Quality (Cohen, Kincaid & Childs, 2007),
- the Self-Assessment and Program Review (SAPR) (Walker, Cheney & Stage, 2009), and

**Evidence of effectiveness**

Controlled evaluations of the effects on student behaviour of introducing both the earlier version (EBS) and the later version of SW-PBS include a number of single case evaluations of its effects on teacher behaviour, numerous pre-post evaluations of programme effects of the rate of school disciplinary referrals, and four randomised control trials - one of which reported programme effects on the subgroup of students with severe behaviour problems. The evaluation data for SW-PBS is far more extensive than that for any other school-wide discipline plan (Gottfredson, 2001).

*Controlled single case experimental analyses of teacher and child behaviour changes*
There is at least one single case demonstration (replicated across three early childhood teachers) that SW-PBS increases the ratio of teachers’ positive to disciplinary reactions and that this change is accompanied by reductions in child antisocial behaviour (Stormont, Smith & Lewis, 2007).

Pre-post evaluations of SW-PBS effects on school wide behaviour, disciplinary referrals, suspensions, and achievement

Of the evaluations undertaken to date, only one appears to have been undertaken in an early childhood setting (Stormont et al., 2007). As well as changing their management of child antisocial behaviour, all three teachers rated the programme very positively on a social validity questionnaire. Some of the adaptations which were made to the primary school version of SW-PBS to make it “fit” the early childhood setting are described by Stormont, Covington and Lewis (2006).

Almost all of the controlled evaluations of EBS and SW-PBS have involved primary schools (elementary and middle schools). The great majority of these are within-school, pre-post evaluations of the effects of introducing EBS or SW-PBS on school wide disciplinary referrals or other measures of misbehaviour (e.g. Colvin et al., 1996; Lassen, Steele, & Sailor, 2006; Luiselli, Putnam, Handler & Fienberg, 2005; Metzler, Biglan, Rusby & Sprague, 2001; Nersesian, Todd, Lehmann & Watson, 2000; Taylor-Green et al., 1997). All of these studies report a reduction in the number of disciplinary referrals (following introduction of SW-PBS) to 60% or less of the pre-programme rate.

Some of these have been pre-post studies of the effects of introducing EBS or SW-PBS on student misbehaviour in particular school settings such as the lunch room (Colvin, Sugai, Good & Lee, 1997; Lewis, Colvin & Sugai, 2000; Lewis, Powers, Kelk, & Newcomer, 2002).

Several pre-post studies have shown not only the sustained drop in disciplinary referrals and suspensions over a two to three year period but also corresponding improvements in mean standardised reading comprehension and mathematics scores on standardised tests (e.g. Luiselli, Putnam, Handler & Fienberg, 2005).

Once disciplinary referrals have been substantially reduced, several within-school evaluations have shown that both the programme and the greatly reduced number of disciplinary referrals have been maintained over 3 to 5 year periods (Lassen, Steele, & Sailor, 2006; Luiselli, Putnam & Sunderland, 2002; Taylor-Greene & Kartub, 2000).

The research literature includes at least one attempt to adapt the programme for older students and to introduce it into a secondary school (Bohanon et al., 2006). Initial results were similar to those obtained with primary school populations (a halving of disciplinary referrals) but this change was not maintained. The maintenance failure was due to a failure to fully implement the programme in the participating school.

RCTs of SW-PBS effects on disciplinary referrals, suspensions or achievement

The first randomised control trial of EBS (Colvin et al., 1993) involved two large, matched, primary schools (a control school and an EBS school). Over a 2-month period, disciplinary referrals increased 12% in the control school and reduced by 50% in the EBS school. All categories of misbehaviour decreased to a similar extent. A subsequent implementation (Sprague, Walker, Golly, White, Myers & Shannon, 2001) produced similar results.
A third study (Nelson, 1996) was a two year study of four schools, two experimental schools and two matched control schools. Introduction of EBS into the experimental schools resulted in a substantial reduction in expulsions, suspensions and removals. These events increased in the control schools over the same period.

The most recent RCT involved 21 schools randomly assigned to SW-PBS training and 16 schools randomly assigned to a business as usual control condition. The first report of this trial (Bradshaw, Reinke, Brown, Bevans & Leaf, 2008) is a study of implementation fidelity which shows that “the training and support provided to the schools in this sample was sufficient to promote high implementation fidelity in a relatively short period of time (Bradshaw et al., 2008, p. 19). At the time of writing, the main report of this RCT (Bradshaw, Mitchell & Leaf, in press) had yet to be published.

**RCTS of SW-PBS effects on the behaviour of children with severe conduct problems**

Only one of the RCTs undertaken to date has examined the effects of SW-PBS on the behaviour of children with serious conduct problems (Nelson, 1996). Nelson reported separate results for the 20 students in each school who qualified as behaviour disordered using the first two stages of Walker and Severson's SSBD screening system. The data is rating scale data provided by the teachers. Over a 6 month period, the mean score of the 20 BD children on the Devereaux Behavior Rating Scale fell from 116 (which is in the clinical range) to 108 (the same as that for the comparison children). The ES for improvement in behaviour (experimental vs. control group) was .61. The ES for teacher rated improvement in work habits was 1.4.

**Dissemination**

Over the past six years, the U.S. Department of Education’s Office of Special Education Programs (OSEP) has invested in technical assistance to states and districts choosing to implement SW-PBS. Over 3,000 schools across 34 states are now implementing or in the process of adopting SW-PBS. A number of U.S. state Departments of Education have added SW-PBS pages to their websites, for example, Colorado, Illinois, Kansas, Missouri, New Jersey, Oregon, and Tennessee. Implementation is occurring primarily in elementary and middle schools, but the approach is now being adapted, applied, and studied in over 200 high schools.

Preliminary data from several state-wide implementations are beginning to appear in the literature. These include a report on the Iowa Behavioral Initiative (Mass-Galloway, Panyan, Smith & Wessendorf, 2008) where the plan is for 50% coverage within 5 years; a report on the Maryland implementation (Barrett, Bradshaw & Lewis-Palmer, 2008) and a report from British Columbia (Chapman & Hofweber, 2000). An evaluation report on the Illinois experience is also available (Eber, 2005). Eber reports that when SW-PBS is implemented to criterion, schools can expect a 20-60% reduction in office discipline referrals, increases in the time students spend in instruction, higher levels of reading achievement, decreases in time spent attending to misbehaving students, and a decrease in the number of students identified for individualised interventions (Eber, 2005). These dissemination efforts are resulting in studies of barriers to implementation (e.g. Kincaid, Childs, Blase & Wallace, 2007).

A 90-school study using a randomized, wait-list, control group design is currently being funded by OSEP to assess the a) impact of technical support on the ability of schools to adopt SW-PBS practices with high fidelity, b) the impact of SW-PBS practices on social and
academic outcomes for students, and c) the sustainability of SW-PBS practices and outcomes over time.

References


Appendix 1.6: Teacher managed interventions for children with disruptive behaviour disorders

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Programme goals

The primary goals of the teacher managed interventions described in this section are to provide teachers with the knowledge and the skills which they need in order (a) to better manage disruptive and antisocial behaviour in the school setting and (b) to accelerate the antisocial child’s acquisition of replacement behaviours, that is, the pro-social skills which they will be expected to use in place of their previously acquired antisocial behaviours.

Conceptual framework

All of the interventions described in this section are applications derived from the principles of behaviour. “Principles of behaviour” is the name given to the comprehensive theory of learning developed by behaviour analysts as a result of their research into the conditions which govern motivation, performance and learning in children and adults.

Description of the Interventions

Component interventions

Most of the evidence-based interventions used by teachers to halt antisocial development and to accelerate pro-social development in school settings are contingency management operations. The main contingency management operations are (a) the reinforcement operations (differential reinforcement of desired behaviour, differential reinforcement of improvements in performance, differential reinforcement of low rates of disruptive behaviour, and so on), (b) the non-reinforcement operations (planned ignoring of disruptive behaviour, non-reinforcement of disruptive behaviour, and so on) and (c) selected reinforcement removal operations (punishment by natural consequences, time out from reinforcement, response cost, privilege loss, and so on).

Well established interventions

There are a number of well evaluated behaviour management systems, designed specifically for classroom use, which use these contingency management procedures in various combinations. Four of these meet the criteria for a “well established intervention”. These are the First Step to Success programme, the Programme for Academic Skills (PASS), Reprogramming Environmental Contingencies for Effective Social Skills (the RECESS programme), and the Good Behaviour Game. Each of these programmes was initially developed by special education researchers at the University of Oregon.
Programme for Academic Survival Skills (PASS)
PASS is a selected intervention which was developed to meet the needs of Year 1 and 2 children who arrive at school lacking the basic “academic survival skills” (such as attending and following teacher directions) which are necessary in order to profit from schooling. It is applied to the whole class – initially during reading and maths periods. PASS is included here because non-compliance is one of the main risk factors for antisocial development at this age.

PASS consists of the following elements. Children are first taught the main classroom rules (working on learning tasks, following teacher directions, attending to the teacher and talking appropriately). Monitoring and motivation is provided by a clock-light system which records the on-task level of the whole class and is turned off (by the teacher's remote control) when individual students go off-task. Consequences take the form of high rates of teacher praise for task engagement (at least once per minute) and a group activity reward when the class meets the task engagement criteria for a lesson. Initially the criterion is any improvement in task engagement. It is then gradually raised to 80% on-task.

The programme is introduced by a consultant such as a Resource Teacher: Learning and Behaviour (RTLB) in five phases: (a) preliminary assessment to determine whether PASS is needed, (b) teacher practice in monitoring task engagement, using the clock-light and praising appropriate behaviour, (c) full programme implementation for 25 to 45 school days, (d) fading of the rules, reminders, clock-light and activity rewards, and (e) programme maintenance (twice weekly checks of task engagement and self-checking by the teacher of his or her praise rate).

First Step to Success
First Step to Success is a coordinated school and home intervention programme designed to prevent further antisocial development in 4- to 8-year old children who have an elevated risk of developing entrenched conduct problems. First Step to Success consists of three integrated modules. The first module is a diagnostic screening module. The second component is a classroom intervention for children with elevated rates of antisocial behaviour. The third is a family support programme called HomeBase. The First Step to Success programme is available in a preschool version (Walker, Golly, Kavanagh, Stiller, Severson & Feil, 1997) and a junior primary school version (Walker, Stiller, Golly, Kavanagh, Severson and Feil, 1997). Detailed descriptions of the programme have been provided by Walker, Stiller, Severson, Golly & Feil (1998) and Walker, Kavanah, Stiller, Golly, Severson & Feil (1998).

The screening procedure, Systematic Screening for Behaviour Disorders (Walker & Severson, 1992) is a three-stage multiple-gating procedure using teacher referrals, a standardised rating scale for antisocial behaviour, and observations of behaviour in the classroom and playground. It is designed to identify children whose antisocial responses indicate that they are at risk of continued antisocial development.

The second module, is a classroom programme called CLASS (Contingencies for Learning Academic and Social Skills). CLASS involves intense monitoring of the target child’s classroom behaviour, clear expectations with respect to pro-social behaviour and antisocial behaviour and frequent reinforcement for meeting these expectations. CLASS consists of a consultant phase, teacher phase and maintenance phase. During the consultant phase the resource teacher sits with the disruptive child and teaches him or her to discriminate between appropriate and inappropriate behaviour using a “game” with a green/red card (green for “Go” and red for “Stop”). At the same time, the teacher observes the procedure in preparation for taking control in 8 to 10 days time. The child earns points for appropriate behaviour (green
card) but not for inappropriate behaviour (red card). “If 80% of points are awarded for appropriate behaviour a group activity reward is earned at the end of the period. If this criterion is met on both daily sessions, a special privilege, prearranged with the parents, is delivered at home. A brief time-out is used as a penalty for such things as defiance, fighting, intentional damage, and severe tantrums” (Walker, Ramsey & Gresham, 2004). When the child is demonstrating high levels of appropriate behaviour (usually within 2 weeks), the resource teacher turns the red/green card over to the teacher and coaches the teacher to (a) make the timing of CLASS sessions less predictable and (b) to gradually fade from points and class activity rewards to praise for appropriate behaviour. Although organised into 30 programme days, the referred child must meet specified performance criteria each day in order to proceed to the next day otherwise he or she has to repeat that day. The effect of this is that most children take about 2 months to complete the programme.

After 10 days working in the school, the consultant introduces the ‘HomeBase’ component and starts working with the parent at their home (or other convenient location) for 45 minutes per week for 6 weeks. The HomeBase sessions aim to build parent confidence and to teach the parent how to set limits, state expectations, and teach their child such skills as sharing, cooperating, accepting limits, problem solving, and developing friendships within the context of parent-child games and activities. Home school co-operation is two-way with the teacher informing the parent when the child has earned a home reward and the parent informing the teacher when the child has learned a new skill so that the teacher can praise the child for using it at school. Total RTLB time is likely to be 50 to 60 hours per child.

Reprogramming Environmental Contingencies for Effective Social Skills (RECESS)

RECESS was developed by the same team that developed the CLASS programme. It has been designed as a targeted intervention for aggressive/antisocial children in Years 1 to 4. It is based on a “reduce-and-replace” strategy. That is, the target child’s negative-aggressive behavioural repertoire is reduced or eliminated and replaced with an adaptive, pro-social behaviour pattern (Walker et al., 2004).

RECESS is an intervention programme consisting of four components: (1) training in cooperative social behaviour using scripts, discussion, and role playing for the antisocial child and all other class members, (2) a response cost system in which points which have been awarded at the start of each recess are lost for negative social interactions and rule infractions, (3) high rates of praise by the consultant, class teacher and playground supervisor for cooperative interactions and (4) group activity rewards for meeting group goals in the classroom and individual rewards at home for meeting individual goals at school (Walker et al., 2004).

The programme is introduced in four phases. First, the programme is introduced in the playground where it is operated by the consultant for the first 10 days (while the consultant teaches the playground supervisors how to operate the programme) and by the school’s playground supervisors from then on. Secondly, the programme is extended to the classroom. This phase lasts about 15 days. Thirdly, the extrinsic rewards are gradually reduced over a 15 day fading period. Finally, the programme continues indefinitely using a low-cost variation of the procedure in which praise and a surprise group activity reward is made available if covert monitoring of the target child during recess shows that the child’s social behaviour is continuing in the normal range.
The Good Behaviour Game

The Good Behaviour Game has been used both as a targeted intervention (e.g. Salend, Reynolds & Coyle, 1989) and as a universal (prevention) programme and it has been used both as a prevention programme on its own (e.g. Embry, 2002) and as part of a larger prevention programme. An example of the latter is its use as the school component of the LIFT Programme (Eddy, Reid & Fetrow, 2000) described in the section on Parent Management Training (PMTO).

The Good Behaviour Game is a reinforcement programme for classroom use in which the class is divided into two or three matched teams and reinforcement takes the form of a group reward rather than an individual reward. Most versions of the GBG also aim to improve teachers' ability to define tasks, set rules, and discipline students. Before the game begins, teachers clearly specify those disruptive behaviours (e.g., verbal and physical disruptions, non-compliance, etc.) which, if displayed, will result in a team's receiving a checkmark on the board. By the end of the game, teams that have not exceeded the maximum number of marks are rewarded, while teams that exceed this standard receive no reward. Over time the teacher moves to beginning the game with no warning and at different times of the day so that students learn to continually monitor their own behaviour. Once disruptive behaviour has been reduced to a low level the Good Behaviour Game can be used to motivate improved engagement and then improved rates of progress towards academic and social skills goals.

In well designed implementations, teachers receive approximately 40 hours of training in the proper implementation of the Game, and supportive mentoring during the school year.

Resources

Resources for PASS include:
- a consultant’s manual (Greenwood, Hops & Walker, 1991a)
- a teachers manual (Greenwood, Hops & Walker, 1991b) and
- a set of forms and consumable materials (Greenwood, Hops & Walker, 1991c)

Resources for First Step to Success include:

Resources for the RECESS programme include:
- a book about the programme (Walker, Hops and Greenwood, 1993)
- a supervisor’s manual (Walker, Hops and Greenwood, 1991a)
- a teacher’s manual (Walker, Hops and Greenwood, 1991b) and

Resources for the Good Behaviour Game include:
- a Schoolwide Implementation Guide (Embry, Straatemeier, Lauger & Richardson, 2003a)
Evidence of Effectiveness

Single case analyses of parent and child behaviour changes during intervention
Research into the effectiveness of the various contingency management operations in managing antisocial behaviour and training prosocial alternatives to antisocial behaviour is extensive. There are some 60 single case experimental demonstrations of the effects of various reinforcement operations in motivating age appropriate levels of attention, task engagement, improved performance levels, compliance and self-control in children with disruptive behaviour disorders in classroom settings. This research includes intervention work with preschoolers, junior primary and intermediate primary school children, and secondary school students. A number of the experimental analyses have been undertaken in New Zealand classrooms (e.g., Ellery, Blampied & Black, 1975; Fry & Thomas, 1976; Seymour & Sanson-Fischer, 1975). There have been numerous demonstrations of the effects of training on both the teacher’s behaviour in the classroom and subsequent improvements in the behaviour of the children in that classroom (e.g., Thomas, Pohl, Presland & Glynn, 1977; Ward & Baker, 1968).

Also included in this corpus of research are a further 20 studies of the effects of various types of contingent sanctions on the antisocial behaviour of children with conduct problems in the classroom. These include demonstrations of a rapid reduction in antisocial behaviour following the introduction of time out operations (e.g., Alberto, Heflin & Andrews, 2002; Sherburne, Utey, McConnell & Gannon, 1988), response cost operations (e.g., Pfiffner, O’Leary, Rosén, & Sanderson, 1985; Witt & Elliot, 1982) and natural consequences (e.g., Lovitt, Lovitt, Eaton & Kirkwood, 1973).

One of the important findings from the classroom contingency management research is that more rapid changes from antisocial to pro-social responding occurs when pro-social responses result in reinforcement and antisocial responses result in time out or response cost consequences (Pfiffner & O’Leary, 1987; Rosén, Gabardi, Miller & Miller, 1990).

The data on PASS
The PASS programme has been tested in at least four controlled evaluations involving children in their first three years at school who have been identified as the lowest performing children in the class (Greenwood, Hops & Walker, 1977a; Greenwood, Hops & Walker, 1977b; Greenwood, Hops, Walker, Guild, Stokes, Young et al., 1979; Hops & Cobb, 1973). In all four studies, introduction of the PASS programme resulted in average improvements in task engagement from baseline levels of 60 to 70 per cent on-task to post treatment levels within the normal range (75 to 85 per cent). Children with the lowest rates of engagement and fewest pre-academic skills made the most improvement, the improvements in task engagement were accompanied by improvements in reading skills and maths skills at a rate similar to that of normally developing children, and improvements were maintained at a 9 week follow-up (Greenwood et al., 1977b). A component analysis by Greenwood, Hops, Delquadri and Guild (1974) indicated that it was the group reward (not the rules or the clock-light) which was primarily responsible for the improvements in task engagement.

Data on First Step to Success
The CLASS programme was originally designed as a stand alone professional development programme and the first two evaluations were of CLASS delivered in this form. These two
randomised trials are described in Hops, Walker, Fleischman, Nagoshi, Omura, Skindrud, et al. (1978). In the first trial, using 11 experimental classrooms and 10 control classrooms, the mean percentage of appropriate classroom behaviour for the “acting-out” children increased from 70% to 81% while the children in the control classrooms did not change. The ES for the programme effect on total positive classroom behaviour at program conclusion was 1.0. The second experiment used 16 experimental classrooms and 17 control classrooms. With respect to appropriate classroom behaviour, the experimental subjects improved from baseline (62%) to programme termination (73%) and from termination to follow-up (82%). The ES at the end of the programme and at follow-up was 0.5.

The full First Step to Success programme has also been evaluated in two partly randomised trials. The first of these involved 46 5-year olds (US kindergarteners) (Walker, Kavanagh, Stiller, Golly, Severson & Feil, 1998). The second was a scaling up before-and-after trial involving 181 students from Grades K to 2 (plus a non-random control group) recruited from a range of Oregon schools (Walker, Golly, Zolna, McLane & Kimmich (2005). In the first of these trials (Walker et al., 1998), the mean proportion of engaged time increased from 63% at baseline to 80% post-intervention for Cohort 1 (ES = 1.05) and from 60% to 90.8% for Cohort 2 (ES = 2.2). These remained above 80% in 1st grade the following year. At the same time, aggression scores on teacher completed Child Behaviour Checklists fell from a mean of 20.3 and 24.8 to 11.0 and 16.8 for Cohorts 1 and 2 respectively. In the second trial (Walker et al., 2005), engaged time increased from a mean of 64% to a mean of 87% producing an ES of 1.3 and aggression scores on the CBCL fell from 25.4 to 16.0 giving an ES of 0.84. Checks on treatment fidelity revealed that teachers made many modifications to the procedures (such as failing to run the programme every day and selecting strange rewards). However consumer satisfaction was reported to be high and it is interesting to note that results were comparable with the earlier trials even although teacher adherence varied widely.

In addition, two before-and-after trials have been reported. The first involved 20 kindergarteners (Golly, Stiller & Walker, 1998) and reported changes in student behaviour which closely paralleled the changes reported by Walker et al. (1998). The second before and after trial, recruited a sample of 22 students of whom 16 completed the programme (Overton, McKenzie, King, & Osborne, 2002). Overton et al. reported changes in academic engaged time similar to those reported by the programme developers but reported that there was little, if any, change in teacher reported CBCL aggression scores. A randomised control trial involving 42 grade 1 to 3 students who had been diagnosed as students with ADHD has also been reported (Seeley et al., 2009). Results were similar to those obtained with children with conduct problems.

Detailed reports of the specific behavioural changes which occur during the programme and when they occur have been provided by a number of single case experiments: an experiment involving two sets of twins (Golly, Sprague, Walker, Beard & Gorham, 2000), an experiment involving three Grade 1 and 2 students assessed as students with co-morbid ADHD and conduct problems (aggression) (Lien-Thorne & Kamps, 2005), an experiment involving four Native American students (Diken & Rutherford, 2005), an experiment which added a functional assessment of aggressive behaviour to the initial screening procedures (Carter & Horner, 2007), and an experiment which explored the use of booster sessions to achieve long term maintenance of normal levels of engagement with classroom tasks and low levels of antisocial behaviour in six non-compliant 5-year olds (Beard & Sugai, 2004).

A scaling up trial has yet to be undertaken but a seminar presentation on the SRI International web site <www.policyweb.sri.com/cehs/publications/2007IES%20ResConfSRIORI.pdf>
describes a trial involving up to 48 elementary schools which is under way in five school districts across the state of Oregon.

The data on RECESS
The RECESS developers have provided details of the rates of positive social interactions and negative behaviours observed in the playground for a sample of 5- to 8-year old children prior to and following participation in the RECESS programme (Walker, Hops & Greenwood, 1993). Generally speaking the positive interactions rates of the antisocial children in these samples are similar to that of other children in the class while the negative response rates tend to be 8 times higher than that of normally developing classmates.

Evaluation of the programme consists of a single clinical trial (Walker, Hops & Greenwood, 1981). This involved 12 teachers and 24 highly aggressive primary school children (12 experimental and 12 control children). Complete data was collected for 20 of these children. The RECESS programme reduced the level of playground aggression from a mean of 64 acts an hour to a mean of 4 per hour over a three month period. The ES on playground aggression was 0.97. A subsequent within-subject experiment involving two children demonstrated that peers can be trained to operate as the playground monitors and reinforcing agents (Dougherty, Fowler & Paine, 1985). RECESS is included in this description because each of the components of the programme met the criteria for a well established intervention.

Data on the Good Behaviour Game
The Good Behaviour Game was developed by Barrish, Saunders and Wolf (1969). The latest review of evaluations of this intervention (Tingstrom, Sterling-Turner & Wilczinski, 2006) lists 26 separate, controlled evaluations. Two of these are randomised groups experiments. Most of the others are well controlled single case experiments. However only seven of these involved students who might be considered to be students with disruptive behaviour disorders (Darch & Thorpe, 1977; Daveaux, 1984; Davies & Witte, 2000; Gresham & Gresham, 1982; Johnson, Turner & Konarski, 1978; Phillips and Christie, 1986; Salend, Reynolds & Coyle, 1989). Nevertheless, this is sufficient to qualify the Good Behaviour Game as a well established classroom intervention for students with conduct problems.

The 24 single case experiments span 1st to 11th grade students with the majority of studies involving 4th to 6th grade (9- to 11-year old) students. Students from British, Canadian and Sudanese, as well as US classrooms are included. This intervention has been used to motivate rapid improvements in attention to and engagement in classroom tasks, improvements the quality of classroom work, and reductions in disruptive behaviour and antisocial behaviour. In almost all cases the targeted disruptive behaviours are quickly reduced to acceptable levels and, where maintenance data have been collected, maintained during the following months. There is some suggestion that while the monitoring and the group reward are the major causes of behaviour change, peer influence also plays a part (Gresham & Gresham, 1982).

The randomised group experiments have included long-term follow-ups. The Baltimore Prevention Project (Ialongo, Poduska, Wertheramer & Kellam, 2001), for example, involved a randomised trial in which 678 students who entered 1st grade in 19 urban Baltimore schools were followed up to the end of the 6th grade (age 11). The schools’ 27 1st grade classrooms were randomly assigned to (1) a group that received the Good Behaviour Game plus curriculum enhancements; (2) a group that received the Family-School Partnership (an intervention designed to improve parent-teacher communication and parents’ teaching and parenting skills) and (3) a control group. Students and teachers were then randomly assigned to the classrooms. Interventions were provided only during 1st grade. Teachers in both
intervention groups received 60 hours of training prior to implementation. Compared to the control group students, the students in the Good Behaviour Game classes were, at age 11, (a) much less likely to have a conduct disorder (4% versus 10%) and (b) less likely to have been suspended during the previous school year (22% versus 34%).

**Dissemination to date**

Programme publicity indicates that First Step to Success has been adopted by a number of school districts in eight US states and three Canadian provinces.

**New Zealand implementations**

There are two New Zealand examples of school and home interventions which involved a set of interventions closely similar to those included in First Step to Success. The first of these is the Early Social Learning Project which operated in Christchurch during 1995-1997 and the second is Project Early which began in Christchurch in 1995 and continues to operate in Christchurch and Auckland. Descriptions of both of these projects together with outcome data from the first two years of operation will be found in Church (2003). In Project Early, the home and school interventions delivered to the parents and teachers of 5- to 7-year old antisocial children (identified using a standard screening procedure) succeeded in returning 67% of the children admitted to the programme (and 80% of the children whose parents and teachers completed the programme) to a normal developmental trajectory. Similar results were reported for the Early Social Learning Project which was designed for the parents and preschool staff of 3- to 4-year olds. Success rates were lower for the 8- to 12-year old antisocial children.

**References**


Appendix 1.7: Multidimensional Treatment Foster Care (MTFC)

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Programme goals

The goal of Multidimensional Treatment Foster Care (MTFC) is to decrease problem behaviour and to increase developmentally appropriate normative and pro-social behaviour in children and adolescents who are in need of out-of-home placement.

Conceptual framework

MTFC is an extension of the interventions developed by the Oregon Social Learning Centre and is based in part upon social learning theory, applied behaviour analysis, and the OSLC research programme which has identified many of the conditions necessary for healthy social development. MTFC is based on the assumption that retraining of antisocial youth is more likely to be accomplished by foster parents who have not become enmeshed in a long history of aversive interactions and confrontations with the developing child.

Description of the Interventions

MTFC is one of the few empirically supported programmes available for the children of parents who have been unable to profit from parent management training or who have been removed from their parents under child protection statutes.

MTFC is a form of foster care in which children and youth are individually placed with highly trained and supervised foster parents. Those placements are augmented with a coordinated array of clinical interventions in the youngster’s biological family, school, and peer group (Fisher & Chamberlain, 2000). There are three versions of MTFC, each serving a specific age group. The programs are:

- MTFC-P For preschool-aged children (aged 3-5 years)
- MTFC-C For middle childhood (aged 6-11 years) (At the time of writing, this programme, its implementation services and its certification criteria were still under development.)
- MTFC-A For adolescents (aged 12-17 years)

All three programmes are multifaceted and operate across multiple settings: MTFC foster home, biological or foster parents, school, and recreational facilities. Behavioural interventions, skills training, psychiatric consultation and medication management are included where needed.

Children are placed in a family setting for 6 to 9 months. Single placements are the norm – although sibling groups may be placed together. Foster parents are recruited, trained, and supported to become part of the treatment team. They provide close supervision and implement a structured, individualised programme for each child. The child’s program is individualised and is designed by the programme supervisor with input from the treatment team. It builds on
the child’s strengths and at the same time sets clear rules, expectations, and limits. MTFC parents receive 12-14 hours of pre-service training, participate in group support and assistance meetings weekly, and have access to programme staff back-up and support 24 hours a day, 7 days a week. MTFC parents are contacted daily (Monday through Friday) by telephone to provide the Parent Daily Report (PDR) of child behaviour during the previous 24 hours. This is used to monitor and plan programme changes. MTFC parents are paid a monthly salary and a small stipend to cover extra expenses. Treatment foster parents are intensively supervised by a full time clinical supervisor who has a caseload of not more than 10 children.

A positive and predictable environment is established for children in the MTFC home via a structured behaviour management system with consistent follow-through on consequences. The system is designed to encourage positive and age-appropriate behaviour in the home through frequent reinforcement from the MTFC parents. Behaviour at school and academic progress is monitored daily in the MTFC-C and MTFC-A versions (Chamberlain, Fisher & Moore, 2000). MTFC parents are supported by a case manager who coordinates all aspects of the youngster’s treatment program. Each individualised programme is structured to give the child or youth a clear picture of what is expected of him/her throughout the day and evening.

The birth family or other aftercare resource receives family therapy and training in the use of a modified version of the behaviour management system used in the MTFC home. Family therapy is provided to prepare parents for their child’s return home and to reduce conflict and increase positive relationships in the family. Family sessions and home visits during the child’s placement in MTFC provide opportunities for the parents to practice skills and receive feedback.

For children and youth who have been referred as a result of delinquency, a high level of supervision is required. Management of the adolescent throughout the day is achieved through the use of a 3-level points system. Privileges and level of supervision are based on the teenager’s level of compliance with programme rules, adjustment to school, and general progress. Youth are not permitted to have unsupervised free time in the community, and their peer relationships are closely monitored. Over the course of the placement, levels of supervision and discipline are relaxed, depending on the youth’s level of progress. Heavy emphasis is placed on the teaching of interpersonal skills and on participation in mainstream social activities such as sports, hobbies, and other forms of recreation.

**Resources**

Training and accreditation services are available for each of the MTFC roles: foster parents, programme supervisors, MTFC therapists and playgroup staff, family therapists, skills trainers, and PDR callers.

**Evidence of Effectiveness**

Five randomised trials testing the efficacy of MTFC have been completed. These include a study of preschool-aged foster children, a study of upper primary school foster-children, a study of youth leaving psychiatric hospital placements, and two studies of adolescents in foster care due to involvement in the juvenile justice system.
The Early Intervention Foster Care Study
This study consisted of 177 preschool-aged children, 60 low-income children and 117 children who were already in foster care. The latter were randomly assigned to MTFC-P or to a regular foster care control condition. Results found significant reductions in reunification failures and adoption failures for children in the MTFC-P group, and a reduced risk of permanent placement failure (Fisher, Burraston & Pears, 2005). MTFC-P children also showed increased attachment and decreased insecure attachment behaviours relative to children in regular foster care (Fisher & Kim, 2006). MTFC-P prevented the drop in morning cortisol levels frequently observed among children in regular foster care (Fisher, Stoolmiller, Gunnar, & Burraston, 2007).

Project KEEP
According to the MTFC website, this study involves 701 children (ages 5–12) who were experiencing a new foster home placement. They were randomly assigned to foster homes that received enhanced support and training or to a casework services as usual control condition. Foster parents in the enhanced condition attended weekly foster parent groups focusing on strengthening their parenting skills and confidence in dealing with child behaviour and emotional problems. The sample was ethnically diverse (40% Latino, 26% African American) and included kinship and non-relative foster care providers. At treatment termination, children in homes in the enhanced condition had lower rates of problem behaviour, were less likely to disrupt from their placements, and were more likely to return home to biological families or be adopted.

The Transitions Study
This study involved 32 children and adolescents with severe mental health problems being discharged from the Oregon State psychiatric hospital; they were randomly assigned to MTFC or to a community services as usual control condition. Youth were 9–17 years old and had been residing in the hospital for 1 year. At the 7-month follow-up, youth in the MTFC condition had been placed out of the hospital more quickly, had spent more days in community placements, had fewer behavioural and emotional problems, and were more likely to be living in a family (versus institutional) setting (Chamberlain & Reid, 1991; Chamberlain, Fisher & Moore, 2002).

The Mediators Study
This study involved 79 adolescent males who were court-mandated to out-of-home care due to serious delinquency. They were randomly assigned into MTFC or group care (GC). Participants were on average 14 years of age and had been arrested, on average, 13 times prior to placement. The adolescents who were placed in MTFC engaged in 50% less criminal activity at 1- and 2-year follow ups according to both official records and self-reports, were arrested only half as often, and were more likely to return home than adolescents who were placed in conventional residential facilities. At a 1-year follow up, 41% of the TFC boys had no further arrests compared with 7% of the boys in the control group (Chamberlain & Reid, 1998; Eddy, Whaley & Chamberlain, 2004). In a supplementary analysis, Eddy and Chamberlain (2000) found that three factors predicted subsequent offending: how well a boy was supervised, whether he received fair and consistent discipline and the quality of his relationship with an adult caretaker. Aos et al. (2001) estimated the effect size on the avoidance of future arrests as 0.37.

The Girls Study
This study included 81 adolescent females who were court-mandated to out-of-home care due to serious delinquency. They were randomly assigned into MTFC or group care. Compared to
court referred boys, these girls had higher scores on all scales of the Brief Symptom inventory, had experienced many more family transitions prior to placement, and had been raised by parents with larger numbers of criminal convictions (Chamberlain & Moore, 2002). At the 1-year follow-up, MTFC girls had spent less time incarcerated than the GC girls, had lower parent-reported delinquency rates, had fewer associations with delinquent peers, had spent more time on homework, and had higher school attendance rates (Leve, Chamberlain & Reid, 2005; Leve & Chamberlain, 2005, 2006). At the 2-year follow-up, MTFC girls continued to spend less time incarcerated and had fewer subsequent arrests than GC girls (Chamberlain, Leve, & DeGarmo, 2007).

Dissemination

The Youth Horizons Trust is developing a version of MTFC for application in New Zealand.

References


The Advisory Group on Conduct Problems was established in 2007 as part of the implementation of the Interagency Plan for Conduct Disorder/Severe Antisocial Behaviour 2007-2012 to provide advice on the development of services for children and young people with conduct problems.

The views expressed in the report are those of the Advisory Group on Conduct Problems and not necessarily those of the Ministry of Social Development.