Conduct Problems

Effective Services for 8–12 Year-olds

September 2011

Report by the Advisory Group on Conduct Problems

Advisory Group for Conduct Problems

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Executive Summary

This is the third 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 antisocial, 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 8–12 years. The report is divided into 5 parts which address various aspects of this issue.

Part 1 sets the background to the report and presents:

a) *A brief justification for the focus on 8-12 year olds*: It is noted that the report is intended as part of an integrated series of reports looking at the prevention, management and treatment of conduct problems from early childhood into adolescence.

b) *A statement about the underlying assumptions of the report*: It is noted that, aside from section 4, the report is based around a prevention science methodology in which the identification of programmes is based on a 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.

c) *Treaty Issues*: It is noted that the prevention science paradigm used in the report is not fully consistent with the emerging kaupapa Māori paradigm. To resolve these tensions the AGCP proposes a solution based on the development of parallel generic and te ao Māori approaches. In this report this matter is addressed by an in depth presentation of issues from a Māori perspective in part 4 of the report. This section has been written by Professor Angus Macfarlane in consultation with the Māori advisory committee on this area – Te Roopu Kaitiaki.

d) *Overview of Aetiology and Developmental Trajectories*: This section provides an overview of the role of genetic, social, family, school, peer and related factors in the development of conduct programmes and provides a more detailed account of the ways in which parental behaviours and school environments may encourage and reinforce the development of antisocial behaviours.

e) *Antisocial development during the first 12 years*: This section examines the way in which adult/child interaction patterns may shape the development of antisocial behaviours in the first 12 years of life.

Part 2 presents a discussion of the selection and classification of effective interventions for addressing conduct problems in 8-12 year olds including:

Classificatory Scheme: The presentation of evidence uses the same classificatory scheme as was used in the report on 3-7 year olds. In this scheme effective programmes are classified according to: i) the site at which the programme is delivered (Home; School) and ii) the intensity of the intervention. The intensity of the intervention is classified into three tiers: i) Tier 1 universal programmes that are delivered to all children, families or schools; ii) Tier 2 targeted programmes which would normally be the first programme offered for children with significant conduct problems; iii) Tier 3 targeted intensive programmes which are offered for children who do not show improvement following treatment with a Tier 2 intervention.

Identification of Effective Programmes: The AGCP review identified 21 programmes that were classified as recommended or promising. Recommended programmes were programmes for which there was: a) evidence from at least two randomised trials showing the efficacy of the programmes in the treatment and management of childhood conduct disorder in 8-12 year olds; b) general agreement in the reviews and meta-analyses that these programmes were effective for the treatment and management of conduct problems in 8-12 years; and c) unanimous agreement of the AGCP that these programmes should be included in the portfolio of programmes for 8-12 year olds.

Promising programmes were programmes for which evidence from two randomised trials for the 8-12 age group was lacking but which met all of the following criteria: a) there was substantial evidence in the research literature that the programme was effective in either 3-7 year old or 12-17 year old populations; b) there was indicative evidence that the programme was successful in the management of conduct problems in 8-12 year olds; c) there was general agreement in reviews and meta–analysis that the programme was an effective treatment for childhood conduct problems; d) there was unanimous agreement of the AGCP that the programme should be included in the portfolio of programmes for 8-12 year olds.

Programmes were further classified into Parent and Family Based Programmes; School, Teacher and Classroom Based Programmes and Multi-modal programmes. The Table 1 presents a summary of these programmes.

Table 1. Recommended and promising programmes for 8-12 year olds with conduct problems.

(a) Parent and Family Based Programmes

Programme	Classification
Tier 1 (Universal/Selected)	
Triple P (Levels 1-3)	Promising
Tier 2 (Targeted)	
Parent Management Training Oregon	Recommended
Triple P (Level 4)	Recommended
Incredible Years Basic	Promising
Tier 3 (Intensive)	
Triple P (Level 5)	Recommended
Incredible Years Advanced	Promising
Parent Child Interaction Therapy	Promising

(b) School, Teacher and Classroom Based Programmes

Programme	Classification
Tier 1 (Universal/Selected)	
Good Behaviour Game	Recommended
School Wide Positive Behaviour Support	Recommended
Teacher Behaviour Management Training	Promising
Tier 2 (Targeted)	
Advanced Teacher Behaviour Management Training	Promising
Check, Connect, Expect	Promising
CLASS	Promising
Tier 3 (Intensive)	
Check and Connect	Promising
RECESS	Promising

(c) Multi-modal Programmes

Programme	Classification
Tier 1 (Universal/Selected)	
Linking Interests of Families and Teachers (LIFT)	Promising
Tier 2 (Targeted)	
Coping Power	Promising
Stop Now and Plan	Promising
Tier 3 (Intensive)	
Multi-dimensional Treatment Foster Care	Recommended
Teaching Family Homes	Recommended
PSST + PMT (Kazdin Method)	Promising
Multi-systemic Therapy	Promising

Part 3 focuses on issues in the development of services for 8-12 year olds in New Zealand. Key issues addressed include:

a) *Current Opportunities for Programme Development in New Zealand*: It is noted that following recent developments in New Zealand Policy a number of opportunities have been created for the development of effective services to address conduct problems in New Zealand. These developments include:

- The Positive Learning for Behaviour Action (PB4L) plan developed by the Ministry of Education which provides opportunities to evaluate and extend the School Wide Positive Behaviour Support programme and the Incredible Years Parent programmes.
- The Drivers of Crime initiative, which will provide an opportunity to implement and evaluate Primary Care Triple P.
- Increasing cooperation between Child and Adolescent Mental Health Services (CAMHS) and the Special Education Service of the Ministry of Education in the delivery of services for young people with conduct problems.
- Growing capacity within Non Government Organisations to deliver evidence based programmes including: Multisystemic Therapy; Multi-dimensional Treatment Foster Care; Triple P programmes; Incredible Years.

This combination of opportunities puts New Zealand in a strong position to build on existing policies, services and structures to develop, implement and evaluate effective programmes for the prevention, treatment and management of conduct problems in 8-12 year olds.

b) *Areas Requiring Further Development*: Four areas were identified as requiring further development. These were:

- Greater inclusion of Triple P level 4 and level 5 programmes in Government policy and services.
- Greater investment in universal (tier 1) parent and family based programmes.
- Greater investment in intensive (tier 3) programmes for children with severe conduct problems.
- Greater investment in teacher training resources for the prevention, treatment and management of conduct problems in school settings.

c) *Developing Infra-Structures to Deliver Evidence Based Programmes*: This section identified four areas in which there was a need to develop infrastructure to support the implementation of evidence based programmes for the prevention, treatment and management of conduct problems in 8-12 years.

The first area concerned current Government structures for delivering these services. It was noted that the Ministries of Education, Health and Social Development employ a) different sources of referral; b) different criteria for identifying children with conduct problems; c) use different treatment approaches. The AGCP is of the opinion that this system is seriously flawed and in urgent need of reform. It is concluded that there is a need to restructure the work of CYF, CAMHS and SE so that:

i) All children coming to attention for significant conduct problems are provided with an adequate clinical assessment of their problems conducted by a trained psychologist, psychiatrist or by a person such as a qualified nurse, teacher or social worker working under the supervision of a trained psychologist or psychiatrist.

ii) That depending on the outcomes of this assessment, young people with clinically significant levels of conduct problems, should be referred to an appropriate evidence based programme and subsequent follow up.

The second area considered involved the development of work force capacity to deliver evidence based programmes. It is recommended that greater investments are made in training: Registered Psychologists and Child Psychiatrists; Therapists and Practitioners; Teachers and Social Workers.

The final infra structural issue addressed concerns the need to develop effective implementation methods for evidence based programmes. This requires that attention is paid to: pre-service and in service training; staff mentoring and consultation; staff evaluation; organisational support and leadership and adequate evaluation of programme outcomes. It is recommended that in implementing interventions to address childhood conduct problems investments are made in developing detailed implementation plans that address these issues.

d) *Developing Interventions to Test Programme Effectiveness*: It is argued that it is important that new programmes introduced into New Zealand are subject to thorough evaluation before large scale investments are made into these programmes. A three stage evaluation process is involved with the first stage involving pilot research to examine the fidelity and feasibility of the programmes. The second stage involves the use of a randomised controlled trial using a wait list design and the third stage involves long term study of those provided with the intervention to examine the longer term prognosis of those exposed to treatment.

Part 4 provides a te ao Māori Perspective on the prevention, treatment and management of conduct problems.

This part provides a te ao Māori view of conduct problems and lists current kaupapa Māori programmes for 8-12 year-old tamariki and their whānau, identifying these programmes as emerging or sustained. It also discusses evidence from a Māori worldview and proposes an evaluation framework to develop consensual decisions on programme effectiveness. The section:

a) Sets out an understanding of conduct problems from a te ao Maori perspective building from advice provided by Te Roopu Kaitiaki and developed by Cherrington in *Te hohounga, Mai i te tirohanga Māori* (2009). This perspective emphasises the ecological context in which conduct problems occur and the significance of this context regarding intended responses.

b) Identifies the small number of Māori developed programmes and relative lack of published research about effectiveness for Māori, compared with mainstream generic programmes. The need to address equity in the funding of kaupapa Māori programmes and their evaluation is included in the recommendations. The text also identifies the need to increase the number of experienced Māori researchers.

c) Discusses the need for generic programmes working with whānau to be made culturally appropriate and responsive. The need to lift the cultural and clinical capacity of practitioners who work with whānau within both generic and kaupapa Māori programmes is included in the recommendations.

d) Outlines the dynamics implicit in understanding evidence from a Māori worldview and emphases the importance of valuing mātauranga Māori epistemology equally with western science approaches in establishing evidence and effectiveness.

e) Proposes an evaluation framework to inform future policy development. The framework takes a braided rivers approach where knowledge from the kaupapa Māori stream informs the development of western science (generic) programmes and knowledge from western science programmes informs the development of kaupapa Māori programmes. This approach would enable consensual agreement on programme efficacy and on consequent policy advice for decision-makers.

Part 5 provides Concluding Comments and Recommendations

The chapter notes a number of important changes have occurred that have facilitated the development of policy. These changes include:

a) *Recognition of the significance of conduct problems* by a number of government policies including the Positive Behaviour for Learning Strategy and the Drivers of Crime strategy.

b) *The availability of an ever increasing literature* on effective evidence based programmes for the prevention, treatment and management of conduct problems.

c) *Increasing New Zealand investment into well validated programmes* including Parent and Family programmes; School Based programmes and Multi-modal programmes.

d) *Growing recognition of the need for diverse cultural perspectives* in the evaluation of programmes developed in or introduced into Aotearoa/New Zealand.

The report also notes a number of barriers to the effective implementation of policy. These barriers include:

a) *Lack of uniform lines of referral, assessment and treatment*: There are clear differences in both the type of assessment and the extent of service provision for children coming to attention via the Education, Health and Child Youth and Family services. There is an urgent need to develop uniform methods of assessment and intervention that can be applied across sectors.

b) *Lack of Qualified Staff*: The types of programme that have been identified as being effective in this report require the availability of trained staff. In particular there is a clear need for increased numbers of: a) psychologist and psychiatrists who are capable of leading and supervising evidence based interventions; b) well trained and supervised therapists and practitioners who are able to deliver programmes to families, teachers and schools; c) well trained teachers and social workers who have a background in the identification, treatment and management of childhood conduct problems.

c) *Research Infrastructure*: Finally there is a need for increased investment into research and evaluation infrastructure to ensure that programmes can be evaluated from both scientific and Kaupapa Maori perspectives.

The report concludes with a series of 23 recommendations aimed at facilitating the development, implementation and evaluation of effective programmes for the prevention, treatment and management of conduct problems in 8-12 year olds.

1.1 Introduction

1.1.1 This is the third 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 and adolescence. As noted in our previous reports (1, 2) we are using the term conduct problems to refer to a constellation of aggressive, antisocial, defiant and oppositional behaviours which, when present in children and young people, predict a wide range of social, educational and health outcomes in later life. Within the health sector, young people who engage in these behaviours are often described as having conduct disorder or oppositional defiant disorder whereas within education they are often described as displaying challenging behaviour or severe anti-social behaviour. Despite differences in terminology in health, education and welfare sectors, concern focuses on between 5-10% of children and adolescents whose conduct difficulties pose threats to their current and future healthy development (1).

1.1.2 Our last report (2) reviewed the evidence for effective programmes in 3-7 year olds and identified a series of effective programmes for treating and managing conduct problems in this age. We began with the 3-7 year old group on the grounds there are good reasons for believing that early intervention is likely to have the best return in reducing later conduct problems and related difficulties. In the present report we turn our attention at identifying effective programmes for 8-12 year olds.

1.1.3 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. The report then recommends a portfolio of interventions for addressing conduct problems in 8-12 year olds. These interventions span:

1) Parent and Family based interventions
2) School, Class and Teacher based interventions
3) Multi–modal interventions

A major theme that dominates these recommendations is the need for programmes for 8-12 years to be more comprehensive and intensive than the suite of programmes we identified for the 3-7 year old age group. The section also includes discussion of the common features of effective programme and also identifies interventions that lack compelling evidence of programme efficacy.

Part 3: *Implementing Programmes for 8-12 years olds.* This section sets out a series of recommendations for implementing and evaluating programmes for 8-12 year olds. The section focuses upon the following issues and themes:

1) Current Opportunities for Programme Development in New Zealand
2) Areas Requiring Further Development
3) Developing an Infrastructure to Deliver Evidence Based Programmes

Part 4*: Issues for Māori.* This section has been prepared for this report by Professor Angus Hikairo Macfarlane and provides an overview of the issues that arise in the implementation and evaluation of programmes delivered to Māori. This includes an examination of the issues that arise in developing culturally responsive programmes and a consideration of issues relating to Scientific and Kaupapa Māori approaches to programme development and evaluation. The section emphasises the need to develop robust methodologies which ensure that publicly funded programmes are shown to be effective using both Scientific and Kaupapa Māori methodologies.

Part 5: *Summary Conclusions and Recommendations.* This section provides a summary of the key findings and makes a series of recommendations regarding:

1) The choice of programmes suitable for 8-12 year olds in New Zealand
2) The implementation of programmes
3) The evaluation of programmes
4) The need for recognition of cultural factors in the implementation and evaluation of programmes

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 (3, 4). The key elements of this paradigm are:

1) The selection of policies and programmes should be based on reviews and meta-analyses of evidence from the scientific literature.
2) The development of an intervention should be preceded by thorough pilot research to examine programme feasibility, acceptability and factors affecting fidelity of delivery.
3) 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.

4) 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.

1.3 *Issues for Māori*

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 amongst 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 (5-7). This raises the following issue. The prevention science framework espoused by the AGCP and the emerging kaupapa Māori model have a number of fundamental differences about the nature of explanation and evidence (5, 6, 8). In previous reports the AGCP has proposed that the best way of reconciling the tensions that exist between Western Science and kaupapa Māori epistemology was to adopt a solution that was based directly on article 2 and 3 of the Treaty of Waitangi. The solution proposed was as follows:

1) To meet the obligations implied by Article 2 of the Treaty of Waitangi, it was recommended that a separate Māori advisory group was set up, to provide advice on the development of policy related to conduct problems from a te ao Māori perspective.
2) The AGCP should focus on the development of generic services for all New Zealanders including Māori. To meet the obligations of equality implicit in Article 3 of the Treaty, it was recognised that these services need to be delivered in a culturally appropriate way which ensures Māori equitable access to generic services.

This report retains the approach described above but also includes Article 1 of the Treaty. The important underlying principle here, central to Article 1 of the Treaty, is partnership. The intent of the recommendations above is to:

a) Recognise the unique status of Māori as tāngata whenua as guaranteed by Article 2 of the Treaty of Waitangi.
b) Recognise the rights of Māori to have equitable and culturally appropriate access to generic programmes and services as guaranteed by Article 3 of the Treaty of Waitangi.

1.3.1 The important implication of this approach is that the policies and interventions proposed in this report are Prevention Science based recommendations designed to provide generic services for all New Zealanders (including services that are enhanced to be responsive to 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 within a by Māori for Māori framework. These issues are further addressed in Section 4 which presents a Māori perspective on the delivery of te ao Māori and generic services for Māori. Section 4 also develops a framework for reconciling Prevention Science and Kaupapa Māori research frameworks. This reconciliation recognises the fundamental differences and commonalities in the key assumptions of these epistemological frameworks and proposes that the best route to reconciliation is to require that programmes should be evaluated from both perspectives with effective programmes for Aotearoa/New Zealand being those supported by evidence from both frameworks.

1.4 *Aetiology and Developmental Trajectories*

There is a large and ever growing literature on the factors that place children and young people at risk of developing significant levels of childhood conduct problems and the factors that may act in a protective role (9-13). What emerges most strongly from this body of evidence is that there is no one single factor or set of factors that explains why some young people develop significant conduct problems while others do not. Rather, the evidence suggests conduct problems are the end point of an accumulation of factors that combine to encourage and sustain the development of antisocial behaviours: Amongst the better documented findings are:

1.4.1 Genetic factors: The predominance of males with conduct problems clearly hints at the possibility that the biological and genetic factors may play an important role in the development of conduct problems. There is, in fact, strong evidence to suggest the role of underlying genetic factors from research using twin and adoption designs which has suggested that up to 40% of the variability in antisocial behaviours may be genetic in origin (14). More recently with the development of genetic technology it has become possible to examine the role of specific genes in the development of antisocial behaviours and this research is beginning to highlight the importance of gene x environment interaction in which the outcomes that young people experiences depend on both their genetic background and the environment to which they are exposed (15, 16).

1.4.2 Socio-Economic Factors: A pervasive finding of developmental research has been that rates of many types of childhood problems, including childhood conduct problems, tend to be higher amongst families facing sources of social inequality ad deprivation including poverty, welfare dependence, reduced living standards and related factors (17-22). These findings highlight

the fact that the general socio-economic milieu within which children are raised may have far reaching consequences for their healthy development.

1.4.3 The Family: There is very substantial research which suggests that the nature and quality of the child's family environment plays an important role in developing and sustaining conduct problems (18, 23-30). In particular, children reared in homes characterised by multiple sources of adversity including family violence, child abuse, inconsistent discipline practices, multiple changes of parents and similar factors emerge as being at substantially increased risks of developing significant levels of conduct problems.

1.4.4 Schools: As Rutter has pointed out children spend in the region of 15,000 hours at school (31). Given this it is not surprising to find that the nature and quality of the school environment plays an important role in shaping behavioural directions with growing evidence suggesting that schools that offer consistent, non punitive and supportive environments reduce risks of conduct problems (32-34).

1.4.5 Peers: The nature and quality of the young persons peer relationships also play an important role in shaping behavioural directions with this influence being particularly important in adolescence with the formation of affiliations with anti-social and substance using peers leading to the onset of conduct problems in young people with a previously unproblematic life history (18, 35-38). The role of peers in the development of conduct problems also underlies an important distinction drawn by Moffitt on the basis of her work (21, 39, 40) with the Dunedin Multidisciplinary Health and Development Study (DMHDS). In particular, Moffitt suggested that there are two distinct trajectories by which conduct problems develop. The first is the life course persistent pathway. Young people following this pathway show the early development of conduct problems which persists over the life course. Moffitt suggests that this pathway involves young people who have neuro psychological deficits and who are exposed to disadvantaged or dysfunctional childhood environments. The second pathway is the adolescent limited pathway. Young people following this pathway typically will not show significant conduct problems until adolescence and develop these problems from imitating the behaviours of antisocial peers. What emerges from this large body of research is that the development of childhood conduct problems is the end point of a large number of biological, sociological, family and personal factors which act accumulatively to affect the young person's developmental trajectory and place a significant minority at risk of developing antisocial behaviour patterns. Conversely, what protects young people from developing these problems is exposure to supportive and nurturing environments.

1.5 *Antisocial development during the first 12 years*

Regardless of the constellation of risk factors which are operating to produce elevated rates of conduct problems in the individual child, it is clear that persistent antisocial behaviour at 3 or 4 years of age changes the nature of the child's interactions with parents, siblings, teachers, and peers. In many cases these changes move the child onto what has become known as an antisocial developmental trajectory (35, 39, 41, 42).

A young child with conduct problems is part of a mutually interacting social system. "Regardless of the researcher's theoretical perspective it is generally agreed that in childhood and adolescence, relationships with parents, siblings, peers, and teachers are the basic social ecologies with which antisocial behaviour is displayed practised, learned, accelerated, or suppressed" (43, p. 438). In the families of antisocial children, conflicts occur about 4 times an hour on average (44). This represents 40 antisocial training trials per day, or 14,600 per year. "Repeated over thousands of trials, the child learns to use coercive behaviors to gain control over a disrupted, chaotic or unpleasant family environment. These patterns become overlearned and automatic and operate without conscious, cognitive control" (43, p. 439).

In addition, parents and teachers tend to respond to antisocial behaviour in ways which sustain existing conduct problems and which may result in the development of more advanced antisocial behaviour. The negative reinforcement which sustains coercive interactions functions as a *reinforcement trap* in that the long-term outcomes for the child include repeated avoidance of social and academic skill building tasks such as helping out around the house and completing homework; while the long term outcomes for the parents are feelings of helplessness and an increased tendency to give in to the child again, and to give in earlier, the next time a confrontation occurs.

The failure of the child's parents and/or pre-school teachers "to set limits, and to enforce compliance with the limits which have been set, results, by the time of entry to school, in a non-compliant child who has a short attention span, who lacks social skills and who engages in elevated rates of coercive and antisocial behaviour. Because these behaviours have been practised so many thousands of times, they have become habitual ways of responding" (41, p. 34).

Similar patterns of interaction may occur during the primary school years. For example, the child may bring social learning delays, antisocial behaviour, and self-protective attitudes to the school setting but school organisation and disciplinary practices may contribute to further antisocial development. For example, teachers tend to treat antisocial children differently (45, 46). Walker and Buckley (46) found that teachers attended to the antisocial behaviour of disruptive students 8 times more often than they attended to appropriate behaviour. These percentages were reversed for normal students. Secondly, the underachieving antisocial child is often placed at a level in the

curriculum which is too difficult. Not only does this result in repeated failure and yet more negative feedback, it also produces further disruptive behaviour (47). Sooner or later teacher tolerance for the child's behaviour is exhausted and either teacher expectations are lowered, or the child starts skipping school, or the child is excluded from the school.

By degrees, children with conduct problems children train their parents and their teachers to avoid requiring task completion, to avoid setting limits, to avoid enforcing rules and to avoid further attempts to get them to change their behaviour. This steady erosion of the confidence and the disciplinary practices of key adults results in a child who is given few responsibilities and who is deprived, therefore, of opportunities to learn many of the skills and personal responsibilities which the normally developing child tends to acquire as a matter of course.

Normally developing children learn much from their peers. However, children with conduct problems frequently fail in their attempts to initiate normal peer interactions and also tend to be rejected from peer groups of normally socialized peers. This further reduces opportunities for social development. Because this process starts quite early, antisocial children "miss out on opportunities to acquire and practise prosocial alternatives at each stage of development" (39, p. 683). By age 10 to 11, the child's antisocial behaviour and rejection by peers places the child at risk for entry into a deviant peer group where further antisocial training is likely to occur.

Elevated rates of social punishment and low rates of reinforcement tend to result in a 10- to 12-year old who continues to engage in elevated rates of antisocial behaviour, who makes errors in interpreting social cues, and who frequently attributes hostile intent where there is none. Because such children have difficulty forming relationships, they are also at risk for adolescent onset depression (48). By entry to secondary school the antisocial adolescent has developed a personality which is characterised by a lack of self control, limited social development, low academic achievement, a lack of concern for others, and a very low level of respect for authority.

Part 2: Programme Selection

The focus of this section is upon the identification of the interventions that are likely to be effective and acceptable within New Zealand for the treatment of 8-12 year old children with conduct problems.

2.1 *Identification and Classification of Effective Programmes*

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

On the basis of existing reviews and meta–analyses (41, 49-53) a preliminary list of programmes that had been recommended for the treatment and management of conduct problems in children aged 8-12 was considered. Appendix 1 Part 1 provides summaries of the evidence prepared for the Committee by Dr John Church. On the basis of these summaries and other evidence, effective programmes were then identified and classified into two groups.

1) Recommended Programmes: These were programmes for which there was:

a) Evidence from at least two randomised trials showing the efficacy of the programmes in the treatment and management of childhood conduct disorder in 8-12 year olds.

b) General agreement in the reviews and meta-analyses that these programmes were effective for the treatment and management of conduct problems in 8-12 years.

c) Unanimous agreement of the AGCP that these programmes should be included in the portfolio of programmes for 8-12 year olds.

2) Promising Programmes: These were programmes for which evidence from two randomised trials for the 8-12 age group was lacking but which met all of the following criteria:

a) There was substantial evidence in the research literature that the programme was effective in either 3-7 year old or 12-17 year old populations.

b) There was indicative evidence that the programme was successful in the management of conduct problems in 8-12 year olds.

c) There was general agreement in reviews and meta–analysis that the programme was an effective treatment for childhood conduct problems.

d) There was unanimous agreement of the AGCP that the programme should be included in the portfolio of programmes for 8-12 year olds.

The promising classification was added to the decision process to ensure that programmes that were likely to be effective in the management of conduct problems in 8-12 years were not excluded from our recommendations on the basis of a narrow criterion requiring the availability of two randomised trials applied specifically to the 8-12 year old group. It was the considered opinion of

the committee that applying this narrow criterion could result in the elimination of otherwise effective programmes from the portfolio of interventions for 8-12 year olds.

2.2 *Summary of Recommended and Promising Programmes* At the time of writing the AGCP review identified 21 programmes that met the criteria for recommended or promising, outlined in the previous section. These programmes are summarised in Table 1 which organises these programmes in three general types: a) Parent and Family based programmes; b) School, Teacher and Classroom programmes; c) Multi–modal programmes. For each group of programmes the Table organises programmes into 3 tiers.

Tier 1 programmes are non clinical programmes aimed at the prevention of conduct problems before these develop. These programmes may be universal programmes that are targeted at all children, parents, teachers or schools or programmes that focus on population groups at risk of developing conduct problems.

Tier 2 programmes are clinically based interventions aimed at providing treatment for established conduct problems. Tier 2 programmes are those programmes which would normally be the first offered for children having significant levels of conduct problems.
Tier 3 programmes are more intensive therapeutic programmes that are provided in cases where the child shows severe conduct problems or where treatment by a Tier 2 programme has not been successful.

Table 1. Recommended and promising programmes for 8-12 year olds with conduct problems.

(a) Parent and Family Based Programmes

Programme	Classification
Tier 1 (Universal/Selected)	
Triple P (Levels 1-3)	Promising
Tier 2 (Targeted)	
Parent Management Training Oregon	Recommended
Triple P (Level 4)	Recommended
Incredible Years Basic	Promising
Tier 3 (Intensive)	
Triple P (Level 5)	Recommended
Incredible Years Advanced	Promising
Parent Child Interaction Therapy	Promising

(b) School, Teacher and Classroom Based Programmes

Programme	Classification
Tier 1 (Universal/Selected)	
Good Behaviour Game	Recommended
School Wide Positive Behaviour Support	Recommended
Teacher Behaviour Management Training	Promising
Tier 2 (Targeted)	
Advanced Teacher Behaviour Management Training	Promising
Check, Connect, Expect	Promising
CLASS	Promising
Tier 3 (Intensive)	
Check and Connect	Promising
RECESS	Promising

(c) Multi-modal Programmes

Programme	Classification
Tier 1 (Universal/Selected)	
Linking Interests of Families and Teachers (LIFT)	Promising
Tier 2 (Targeted)	
Coping Power	Promising
Stop Now and Plan	Promising
Tier 3 (Intensive)	
Multi-dimensional Treatment Foster Care	Recommended
Teaching Family Homes	Recommended
PSST + PMT (Kazdin Method)	Promising
Multi-systemic Therapy	Promising

2.2.1 Parent and Family Based Programmes

Table 1a reports on programmes and interventions in which parents and the family are the primary focus of the intervention. The Table reaches the following conclusions:

1) *Tier 1 Programmes:* Triple P levels 1-3 are classified as universal (Tier 1) programmes. These programmes are part of a broad suite of programmes developed by the Triple P organisation and are sequenced in increasing intensity. Level 1 is the provision of information to parents using media and print strategies, and is designed to increase "community awareness". Level 2 provides separate seminars or presentations to parents on common parenting issues, including tip sheets and video demonstrations. Level 3 involves a primary care provider teaching skills to parents over 3-4 brief sessions (individual format) or to groups of about 10 parents over one 2-hour discussion group. On the basis of the review in Appendix 1, Section 1.1 the AGCP classified these programmes as promising Tier 1 Parent and Family based programmes. Further details about Triple P levels 1-3 can be found at: http://www10.triplep.net/?pid=29

2) *Tier 2 Programmes*: Three Tier 2 programmes were identified. These programmes were:

a) Parent Management Training Oregon (PMTO): This is the prototype Social Learning Programme developed by the Oregon Social Learning Centre. Like the Triple P and Incredible Years this programme is delivered in a group setting involving up to 15 parents. The basic programme involves 10 sessions but this may be extended for families who require more treatment. On the basis of the review in Appendix 1, Section 1.2 the AGCP classified PMTO as a Recommended Tier 2 Parent and Family based programme Further details about PMTO can be found at: http://www.isii.net/website.isii/newfiles/pmto.html

b) Triple P level 4: This programme is founded in Social Learning Theory and is designed to provide parent management training to parents of children and young people with significant conduct problems. The programme can be delivered in an individual format or a group setting that involves up to 16 parents over 8-10 sessions. On the basis of the review in Appendix 1, Section 1.1 the AGCP classified Triple P level 4 as a Recommended Tier 2 Parent and Family based programme. Further details about Triple P level 4 can be found at: http://www10.triplep.net/?pid=29

c) Incredible Years (9-12 yrs) Basic Parent Training: This programme is also founded in Social Learning Theory and is designed to provide parent management training to parents of school aged children with significant conduct problems. The Basic programme is delivered in a group setting involving up to 15 parents with the programme being delivered in 18–20 weekly sessions depending on the extent of the child's behavioural problems. On the basis of the review in Appendix 1, Section 1.3 the AGCP classified the Incredible Years Basic (9-12 yr) Parent programme as a Promising Tier 2 Parent and Family based programme. Further details about the Incredible Years Basic Parent Programme can be found at: http://www.incredibleyears.com/Program/IncredibleYears_Program-overview.pdf

3) *Tier 3 Programmes:* Three Tier 3 programmes were identified. These programmes were:

a) Triple P Level 5: This intervention is based on Social Learning Theory and is delivered individually in 10 sessions. These sessions include interventions such as mood management or partner support that are specific to the families' needs. The programme is normally delivered to families who have completed Triple P level 4 but who are in need of further support and assistance. On the basis of the review in Appendix 1, Section 1.1 the AGCP classified Triple P level 5 as a Recommended Tier 3 Parent and Family based programme. Further details about Triple P level 5 can be found at: http://www10.triplep.net/?pid=29

b) Incredible Years Advanced Parent Programme: The Incredible Years Advanced programme builds on the Basic School Age Parent Training Program by focusing on parent interpersonal issues such as effective communication and problem solving skills, anger management and ways to give and get support. The programme is normally delivered to families who have completed the Incredible Years Basic Parent programme and who are in need of further support and assistance. On the basis of the review in Appendix 1, Section 1.3 the AGCP classified the Incredible Years Advanced Parent Programme as a Promising Tier 3 Parent and Family Based Programme. Further details about the Incredible Years Advanced Parent Programme can be found at: http://www.incredibleyears.com/Program/IncredibleYears_Program-overview.pdf

c) Parent Child Interaction Therapy (PCIT): This intervention is based on Social Learning Theory in which therapists provide parents with training and coaching in behaviour management skills. The programme may be delivered at home or in a clinic setting using 'bug in the ear' technology. On the basis of the review in Appendix 1, Section 1.4 the AGCP classified PCIT as a Promising Tier 3 Parent and Family based programme. Further details of PCIT can be found at: http://pcit.phhp.ufl.edu/

2.2.2 School, Classroom and Teacher Programmes

1) *Tier 1 Programmes:* Three universal (Tier 1) programmes were identified. These programmes were:

a) The Good Behaviour Game (GBG): The GBG is a classroom management strategy that rewards children for not engaging in aggressive or disruptive behaviours. Students are divided into teams balanced by gender and behavioural tendencies. Each team earns points depending on the behaviour of its team members and the team with the most points receives a tangible reward at the end of each week. On the basis of the review in Appendix 1, Section 2.2 the AGCP classified the Good Behaviour Game as a Recommended Tier 1 School based programme. Further details about GBG can be found at: www.jhsph.edu/prevention/publications/gbg.pdf

b) School Wide Positive Behaviour Support (SWPBS): This programme is implemented on a "whole of school basis" targeted at minimising rates of antisocial and related behaviours within the School context. The programme comprises a broad range of systemic and individualised strategies for achieving social and learning goals while preventing problem behaviours with all students. On the basis of the review in Appendix 1, Section 2.1 the AGCP classified SWPBS as a Recommended Tier 1 School based programme .Further details about SWPBS can be found at: http://www.pbis.org/

c) Teacher Behaviour Management Training: As identified in the review prepared by Dr Church, there is a large and extensive literature using single subject studies that has identified the key components of successful classroom management for children with conduct problems. These include the use of: a) Differential Attention; b) Increasing Opportunity to Learn; c) Functional Assessment and Analysis; d) Contingency Management. See Appendix 1, Section 2.3-2.6. While the skill sets for the effective management of conduct problems are well recognised in the literature, there is no single manualised programme that brings this material together for the 8-12 year population. However, the AGCP was of the view that this area of teacher training was so important that there was a case for recommending that New Zealand develops its own Teacher Behaviour Management Training. It is proposed that this training should be delivered through Universities and Colleges of Education and involve a Tier 1 programme targeted at all teachers and aimed at providing basic training in the principles of Behaviour Management.

2) *Tier 2 Programmes*: Three Tier 2 programmes were identified. These programmes were:

a) Advanced Teacher Behaviour Management: Parallel to the Teacher Behaviour Management Training programme proposed as a Tier 1 programme, there is a strong case for developing a more advanced version of this programme targeted at Resource Teachers of Learning and Behaviour (RTLB). The aims of this programme would be to provide RTLB with training and skills to provide support and mentorship to classroom teachers involved in the management of children with significant conduct problems. This training should build on the extensive literature from single subject studies of: a) Differential Attention; b) Increasing Opportunity to Learn; c) Functional Assessment and Analysis; d) Contingency Management (See Appendix 1, Section 2.3-2.6).

b) Check Connect and Expect: Check, Connect and Expect (CCE) is a Tier 2 programme which is based on a number of previous evidence based programmes including the Check and Connect model described later. CCE is an active supervision programme which uses paraprofessionals (called coaches) who assume responsibility for 20 or so children with conduct problems. Coaches check with each of their CCE students prior to school each day to: discuss goals for the day; check that a parent has signed the previous day's daily progress record; enter data into the CCE web-based recording system for their school;

provide scheduled social skills tuition; and complete the afternoon check-out where they provide feedback and discuss solutions to any problems encountered during the day. Coaches are trained by a qualified behaviour analyst who is also responsible for ensuring programme fidelity from week to week. On the basis of the review in Appendix 1, Section 2.8 the AGCP classified Check, Connect and Expect as a Promising Tier 2 School based programme. Details of Check, Connect and Expect may be found at: http://www.pbis.org/common/pbisresources/presentations/D5_CheneyCICO.ppt

c) Contingencies for Learning Academic and Social Skills (CLASS): CLASS is a classroom management system for children with moderate behavioural difficulties. The programme is designed for either small classes of children with behavioural difficulties or for use with individual children. The programme involves a Social Learning approach in which the teacher introduces new class room rules which include: group rewards for good behaviour, frequent praise and related reinforcements for good behaviour in the classroom context. On the basis of the review in Appendix 1, Section 2.6 the AGCP classified CLASS as a Promising Tier 2 School based programme. Further details about CLASS can be obtained from: https://firststeptosuccess.sri.com/

3) *Tier 3 Programmes*: Two Tier 3 programmes were identified. These programmes were:

a) Check and Connect: Check and Connect is a school dropout prevention programme for high school students with learning, emotional and/or behavioural problems. The programme involves the use of a trained “Monitor“ who regularly monitors the child’s school engagement (attendance, suspensions and grades). When problems of school engagement arise the monitor delivers manualised cognitive behavioural therapy to address the problems that have arisen. On the basis of the review in Appendix 1, Section 2.7 the AGCP classified Check and Connect as a Promising Tier 3 School based programme. Further details about Check and Connect can be found at: http://www.ici.umn.edu/checkandconnect/

b) Reprogramming Environmental Contingencies for Effective Social Skills (RECESS): RECESS is a classroom programme that targets the behaviours of a particular child and attempts to modify these behaviours (54). The intervention includes peer training to help change the child’s behaviours, the use of a points system and using high rates of praise in addition to group and individual rewards for good behaviours. On the basis of the review in Appendix 1, Section 2.6 the AGCP classified RECESS as a Promising Tier 3 School based programme.

2.2.3 Multi modal Programmes

1) *Tier 1 Programme:* A single Tier 1 programme was identified

a) Linking Interests of Families and Teachers (LIFT): LIFT is a programme designed to decrease delinquent behaviours and promote the positive development of at risk school aged children and adolescents. The programme involves three components: a) classroom based problem solving and social skills training; b) playground based behaviour modification; c) group delivered parent training. On the basis of the review in Appendix 1, Section 4.1 the AGCP classified LIFT as a Promising Tier 1 multi-modal programme. Furthers details about LIFT can be found at: http://www.oslc.org/projects/popups-projects/link-family-teacher.html

2) *Tier 2 Programmes:* Two Tier 2 programmes were identified. These programmes were:

a) Coping Power: This programme may involve separate child and parent components delivered by trained therapists who provide manualised cognitive behavioural therapy to address issues relating to aggression and associated problems. In its full form the programme lasts for 15-18 months but more abbreviated versions are available including child only and group based versions. On the basis of the review in Appendix 1, Section 4.4 the AGCP classified Coping Power as a Promising Tier 2 Multi-modal programme but more intensive versions could also be classified as a Tier 3 programme. Further details about Coping Power may be found at: http://www.copingpower.com/

b) Stop Now and Plan (SNAP): SNAP is a programme designed to address the needs of children under the age of 12 with moderate to severe levels of conduct problems. The programme consists of two components: a child component which is based on cognitive behavioural theory and social skills training and a parent component based on the PMTO model presented in Table 1a. Both the child and parent components of the programme involve 12 sessions. On the basis of the review in Appendix 1, Section 4.2 the AGCP classified SNAP as a Promising Tier 2 Multi-modal programme. Further details about SNAP can be found at: http://www.stopnowandplan.com/

3) *Tier 3 Programmes*: Four Tier 3 programmes were identified. These programmes were:

a) Multidimensional Treatment Foster Care (MTFC): MTFC is an out of home intervention founded on Social Learning theory. In this programme children with severe behavioural difficulties are placed with specially trained foster parents who are provided with ongoing support by a team of trained therapists. Placements typically last for 6-9 months. The programme involves a structured behaviour management system for the child supplemented with family therapy and support for the child's birth family. On the basis of the review in Appendix 1, Section 4.7 the AGCP classified MTFC as a Recommended Tier 3 Multi-modal programme. Further details about MTFC can be found at: http://www.mtfc.com/

b) Teaching Family Homes: In the Teaching Family Home up to six children are placed with specially trained foster parents who act as therapists who teach the children a range of behavioural skills. These include social skills, problem solving, emotional control and related skills. On the basis of the review in Appendix 1, Section 4.6 the AGCP classified Teaching Family Homes as a Recommended Tier 3 multi-modal programme. Further details about teaching family homes can be found at: http://www.teaching-family.org/

c) Combined Problem Solving Skills Training/Parent Management Training (PSST + PMT): Also known as the "Kazdin Method", PSST + PMT is an approach which combines two different perspectives on the treatment and management of conduct problems. The first component (PSST) uses cognitive behavioural training in problem solving skills to teach the child strategies for reducing the frequency of behavioural problems. The second component uses the Parent Management Training model described in Table 1a. It has been claimed that this approach may be more effective than either strategy in isolation. On the basis of the review in Appendix 1, Section 4.3 of the evidence the AGCP classified PSST+ PMT as a Promising Tier 3 Multi- systemic programme Further details on the PSST + PMT approach may be found at: http://www.childconductclinic.yale.edu/

d) Multi-systemic Therapy (MST): MST is a pragmatic and goal oriented therapy that targets the factors in the child's social network that are contributing to his or her antisocial behaviour. MST interventions typically aim to: improve caregiver discipline practices; enhance family affective relations; decrease associations with antisocial peers and encourage participation in pro-social relationships and activities. On the basis of the review in Appendix 1, Section 4.5 the AGCP classified MST as a Promising Tier 3 Multi-modal programme. Further details about MST can be found at: http://www.mstservices.com/

2.3 *Common Features of Recommended or Promising Programmes*

The programmes classified above which have been classified as recommended or promising share a number of common features that probably account for their success. These features include:

a) All programmes use non punitive problem solving approaches which attempt to address the sources of the children's problem behaviours.

b) All are founded in a clearly articulated theoretical framework regarding the aetiology of conduct problems. These theoretical frameworks include Social Learning Theory and Cognitive Behavioural Psychology.

c) All programmes are manualised making it possible to transfer the programme to a new context.

d) The evaluation of all programmes has been founded on a prevention science model and the use of randomised controlled trials.

e) A final feature that unifies many of the tier 2 and 3 programmes is that these programmes are designed for clinical application and require the oversight and supervision of trained clinicians including psychologists, psychiatrists or social workers with clinical training.

2.4 *Programmes Lacking Evidence of Efficacy*

The programmes in Table 1 represent the programmes identified as being recommended or promising using the relatively stringent criteria adopted by the AGCP. As part of this review a number of other programmes were considered which failed to meet the criteria used in the review.

These programmes include:

a) Mentoring Programmes (for review see: (55))
b) Wilderness Programmes (for review see: (56))
c) Zero Tolerance Programmes (for review see: (57))
d) Alternative Education Programmes (for review see (58))
e) Separate Schools (for review see (59))
f) Stand down and suspension from School (60)
g) Social skills training including anger management programmes (see Appendix 1 Part 3)

While it is possible to find reviews and meta-analyses suggesting positive effects for some of these approaches, the AGCP was unable to classify these approaches as recommended or promising for one or more of the following reasons:

1) Lack of Programme Specificity: All of the programmes listed above are general approaches to addressing conduct problems rather than manualised interventions of the type reviewed in Table 1. For this reason whether a particular intervention was found to be effective often appeared to depend on the context in which a particular programme was delivered rather than the general effectiveness of the approach. These issues made it difficult to determine the extent to which interventions which were found to be effective in a specific context could be generalised to other contexts.
2) Contradictory Findings: Problems of programme specificity were compounded by the fact that the evidence on many of the interventions reviewed above was often contradictory with some studies finding benefits and others failing to find benefits.
3) Small Effect Sizes: A further problem that was evident for some interventions including wilderness programmes and residential treatments was that while meta–analysis suggested possible positive effects, the effect sizes tended to be very small.

For these reasons the AGCP was unable to recommend the approaches described above for further development in New Zealand at the present time. These decisions do not preclude the possibility of programmes based on these approaches being treated as recommended or promising in the future as further evidence becomes available but does suggest the need for robust evidence of programme efficacy before major investment in these approaches is contemplated.

Part 3: Developing Evidence Based Services for 8-12 Year Olds in New Zealand

This section considers the issues involved in translating the portfolio of interventions developed in Part 2 to develop effective and adequately evaluated programmes in a New Zealand context.

3.1 *Current Opportunities for Programme Development in New Zealand*

The findings displayed in Table 1 provide an overview of the programmes considered to be recommended or promising for development within a New Zealand context. It is our view that any of these interventions, if appropriately implemented and evaluated, is likely to be effective within a New Zealand context. However, this conclusion does not take into account the extent to which there are existing resources within New Zealand that would favour the development of specific programmes. As part of the preparation for the report, the AGCP has conducted an informal stock take of the current opportunities to develop evidence based programmes. In this process the committee took into account three factors: a) the evidence in support of a particular programme; b) the availability of existing staff and infrastructure to develop and implement programmes; c) Government policies that would favour or facilitate the development of a particular intervention. A series of opportunities for investment are described below.

3.1.1 Opportunities within the Education and Health Sectors

1) Positive Behaviour for Learning: The development of the Positive Behaviour for Learning (PB4L) Action Plan by the Ministry of Education provides a number of opportunities to develop effective programmes for 8-12 year olds (61). These opportunities are described below:

a) Implementation and Evaluation of School Wide Positive Behaviour Support (SWPBS): This programme is currently being developed as part of PB4L and is being targeted at 400 schools, with priority given to secondary and intermediate schools in low decile communities which identify student behaviour as a major challenge. The focus of the implementation of School Wide Positive Behaviour Support to Intermediate and Secondary Schools implies that this implementation will have good coverage of the 8-12 year population. While plans for the implementation of SWPBS are well advanced there is an increasing need to develop an adequate evaluation of the programme using both pilot research and randomised trial methodologies. Although SWPBS has been shown to be an effective programme overseas it is important that it is thoroughly evaluated in a New Zealand context (1). Sound evaluation is particularly important when introducing very complex system-wide intervention such as SWPBS where failure in one part of the system adversely affects the entire system.

b) The Incredible Years Basic (9-12) Programme: As part of PB4L the Ministry of Education in conjunction with the Ministries of Social Development and Health, is implementing and

evaluating the Incredible Years Basic Preschool Programme. This is a recommended programme for the treatment and management of problem behaviours in 3-7 year olds. Given that staff at the Ministry of Education are developing growing experience with the Incredible Years suite of programmes, it seems reasonable that investments are made in the development, implementation and evaluation of the Incredible Years School Aged programme to meet the needs of the 8-12 year population. This will require putting in place both appropriate staff training and evaluation of the efficacy of the Incredible Years School Aged Programme. This work could build on the current implementation and evaluation of the Incredible Years Basic Preschool Programme.

2) Drivers of Crime: As part of the Drivers of Crime initiative (62), the Ministry of Health is proposing the delivery and evaluation of Primary Care Triple P in three sites. Primary Care Triple P is a Tier 1 intervention designed for practitioners who regularly offer advice and support to parents of children (aged 0 to 12 years) during brief consultations carried out in the course of providing routine health surveillance and care. Using this model, practitioners have 3 to 4 brief consultations (15-30 minutes) with families over a 4 to 6 week period or one 2-hour discussion group with about 10 parents. This model is based around Triple P levels 2, 3 reviewed in Section 2 and Appendix 1 Part 1. Currently, funding support to deliver Primary Care Triple P in three areas and conduct a preliminary evaluation has been approved.

3) Collaboration between Health and Education Sectors: There has been increasing involvement of Child and Adolescent Mental Health Services (CAMHS) with the Special Education (SE) service of the Ministry of Education in the delivery of the IY preschool parent programme (63). These collaborations should be encouraged in the implementation and evaluation of the programmes listed in Table 1. More generally, the AGCP was of the view that there may be substantial benefits from encouraging increased collaboration between the Health and Education services to foster the longer term development of integrated cross sectoral Child Mental Health services. One approach to facilitating such development would be to take one or more regions where strong SE/CAMHS collaborations exist and use these regions as a basis for demonstration projects to develop best practice guidelines for the integration and coordination of services.

4) The Role of Non-Government Organisations: As part of its work, the AGCP has become aware of a growing number of non-Government organisations that are developing capacity to deliver evidence based programmes for the treatment and management of conduct problems in 8-12 year olds. These programmes include: a) Multi-systemic Therapy; b) Multidimensional Treatment Foster Care; c) Triple P programmes; d) Incredible Years programmes. Parallel to this growth has been the development of a number of providers who have the capacity to deliver training courses for these programmes. These providers include the Werry Centre (Incredible

Years), MST New Zealand (Multi-systemic Therapy), Youth Horizons Trust (Multidimensional Treatment Foster Care), and Triple P New Zealand (Triple P programmes). In turn, these organisations are providing training to a growing number of NGOs to increase both skills and workforce in the area of the management of childhood conduct problems.

3.1.2 Areas Requiring Further Development

The above brief review makes it clear that within the last 5 years there has been considerable progress in New Zealand in setting up a policy and organisational infrastructure to lay the foundations for the development of effective services for the treatment and management of conduct problems within the 8–12 year population. Nonetheless a number of areas where further development is required are evident. Some of these are reviewed below:

1) *Inclusion of Triple P level 4 and 5 programmes within Government Policy:* As shown in Table 1, the evidence in favour of Triple P levels 4 and 5 is somewhat stronger than for the equivalent Incredible Years programmes. This difference arises because of differences in programme development process with the Incredible Years programme development process placing greater emphasis on programmes for the 3-7 year age group. Further, there has been growing utilisation of the Triple P suite of programmes in New Zealand with both Government agencies and NGOs making increasing use of these programmes. For these reasons the AGCP was of the view that there should be increased investment in Triple P within the framework of the Positive Behaviour for Learning Policy (PB4L). There were three reasons for this decision. The first was that the AGCP saw it as being undesirable to link the development of parent management training services in New Zealand to programmes provided by a single provider. Second, policies encouraging the delivery of both Triple P and Incredible Years programmes would give consumers and therapists some choice about which programme was to be used. Third, inclusion of programmes of different levels of intensity enables a stepped care approach to be taken, where interventions are matched to families' needs resulting in a more cost-effective and sustainable support system. For these reasons the AGCP was of the view that PB4L could be strengthened by including both Incredible Years and Triple P programmes as part of the portfolio of interventions being offered. This would require that the implementation of Triple P would undergo a similar development and evaluation process to that being proposed for the Incredible Years Basic (9-12 year) programme.

2) *Greater Investment in Tier 1 parent and family based programmes*: To reduce the prevalence of conduct problems, further investment is required to up-skill and support the primary care workforce to deliver evidence-based Tier 1 parent and family based programmes, particularly through PHOs, Well Child services, schools and NGOs. These are the settings through which parents and caregivers are most likely to receive parenting advice. The Drivers of Crime initiative

represents an opportunity for increased training and support for primary health care practitioners to deliver both the individual and group versions of Primary Care Triple P. However, the funding is for three regions only and should be expanded.

3) *Greater Investment in Tier 3 programmes*: The above summary shows that most of current policy and investment has focussed on the development of Tier 1 (Primary Care Triple P; School Wide Behaviour Support; Incredible Years Teacher) or tier 2 programmes (Incredible Years Basic). The investment into Tier 3 programmes has been less well developed with these interventions largely being delivered by NGOs rather than Government agencies. There is a clear need within Government to make greater investments into the development of capacity to deliver Tier 3 programmes including Multi-dimensional Treatment Foster Care and Multi-systemic Therapy. In the long run these programmes need integration into the portfolio of services being developed in the Health and Education Ministries.

4) *Development of Teacher Training Resources*: A significant gap in the literature is the absence of Tier 1 and 2 manualised programmes to provide teachers of 8-12 year olds with training in the identification, treatment and management of conduct problems in school settings. While the Incredible Years Teacher Programme provides such training for the teachers of 3-7 year olds no such resource exists for the teachers of older children (1). However, as Appendix 1 Part 2 shows there is a large body of evidence based on single subject research which has identified effective procedures for the management of conduct problems in school and classroom settings. These methods include: functional behaviour analysis; differential attention; improving learning opportunities and contingency management training. While there is a growing body of evidence on the effectiveness of these methods, there is no manualised system that provides teacher training in these methods. The AGCP was of the view that consideration should be given to the development of New Zealand based manualised systems of teacher training for the prevention, treatment and management of conduct problems in children over the age of 7 years to supplement the resource provided by the Incredible Years Teacher Programme for the teachers of 3-7 year olds. This development needs to be accompanied by thorough evaluation to ensure that the training resource is both effective in, and culturally appropriate for, a New Zealand context. As noted previously, these teacher training initiatives should include both basic (Tier 1) training provided to all teachers and advanced (Tier 2) training provided to Resource Teachers of Learning and Behaviour. These developments need to be accompanied by thorough evaluation to ensure that the training resources are both effective in, and culturally appropriate for, a New Zealand context.

3.2 *Developing Infrastructures to Deliver Evidence-Based Programmes*

While there is evidence of growing capacity within New Zealand to deliver evidence-based programmes for the treatment and management of conduct problems, the AGCP identified two important barriers to the development of such services:

1) *Organisational Barriers*: There have been a number of studies examining the pathways by which children with conduct problems come to the attention of Government agencies in New Zealand. A review of this evidence suggests the presence of three rather different referral pathways with the type of treatment that the child/whānau are likely to receive varying between pathways.

a) Education*:* Children with conduct problems who are identified within the education sector are likely to be referred to the RTLB or to the Ministry of Education's Special Education. Services offered to families and schools are within a range of supports depending on the severity of the problems. Children and families following the referral pathway through to Special Education's Severe Behaviour service receive an ecological/functional assessment and intervention from a trained behaviour specialist employed by SE.

b) Health*:* When children with conduct problems are referred by health professionals and others to the Child and Adolescent Mental Health Services (CAMHS) they will normally receive a comprehensive mental health assessment. The classification of conduct problems within CAMHS is based upon DSM IV standardised diagnostic criteria for conduct disorder (CD) or oppositional defiant disorder (ODD). Children meeting criteria for these disorders typically only receive treatment from CAMHS if they have other co-occurring psychiatric disorders. Children meeting criteria for CD or ODD who do not have other disorders are currently not generally treated by CAMHS.

c) Child Youth and Family: Children aged 8-12 who are referred to the Child Youth and Family Service (CYF) will normally be referred because of care and protection issues rather than via the Youth Justice system. Care and protection issues are normally dealt with by a Family Group Conference (FGC). The management of the case is then decided by the participants in the FGC who may include the immediate and extended family, CYF social work representatives and relevant professional workers. However, there is no guarantee that children attending a FGC will undergo a clinical assessment of their behavioural disturbance. Furthermore, the treatment response to the child's behavioural disturbances is determined by the participants in the FGC and there is no guarantee that children with significant conduct problems will be referred to a recognised mental health service.

The AGCP is of the opinion that this system is seriously flawed and in urgent need of reform. It is beyond the brief and expertise of the Committee to develop a detailed plan for restructuring the work of the Ministries of Education, Health and Social Development. However, we are of the view that if the issue of conduct problems in children and young people is to be addressed in a fair and efficient way there is a need to restructure the work of CYF, CAMHS and SE so that:

a) All children coming to attention for significant conduct problems are provided with an adequate clinical assessment of their problems conducted by a trained psychologist, psychiatrist or by a person such as a qualified nurse, teacher or social worker working under the supervision of a trained psychologist or psychiatrist.

b) That depending on the outcomes of this assessment, young people with clinically significant levels of conduct problems, should be referred to an appropriate evidence based programme and subsequent follow up.

c) For all children coming to official attention with significant conduct problems, mechanisms need to be put in place to monitor the child's behaviour and facilitate the access of the child and family to appropriate evidence based services.

These recommendations should not be seen as negating the use of methods such as the FGC for engaging the young person and their whānau but rather as enhancements to the existing services designed to ensure that all young people with significant conduct problems who come to the attention of Government services are treated in a fair, professional and equitable way.

2) *Work Force Capacity:* The proposal to increase investments in evidence based services for the prevention, treatment and management of conduct problems raises important issues about the staffing and training resources available to provide such services (1, 64). Critical to this endeavour will be to increase training resources in the following areas:

a) *Increased Training of Registered Psychologists and Child Psychiatrists*: Many of the tier 2 and 3 programmes listed in Table 1 will require the supervision and oversight of trained psychologists or psychiatrists. This supervision is needed for a number of reasons that include: i) adequate assessment of the young person's behavioural problems and strengths; ii) oversight of the programme delivery and staff training; iii) clinical follow up of children and families referred to these services and iv) programme evaluation. At the present time both the number of clinicians available for these roles and the resources for training further clinicians are limited (1, 64). If evidence based programmes for the management of childhood conduct problems are to become widely implemented within New Zealand there is a need to substantially increase the number of psychologists/psychiatrists

who have the training and skills to lead and supervise evidence based Tier 2 and 3 programmes.

b) *Increased Practitioner Training*: Whilst psychologists and psychiatrists play a central role in the supervision and oversight of evidence based programmes, many Tier 1, 2 and 3 programmes do not have to be delivered by trained clinicians and may be delivered by a range of professionals with training in teaching, general practice, nursing, social work and allied disciplines. There is a clear need for each of the Tier 1, 2 and 3 interventions described in Table 1 to set up training resources to provide a supply of staff trained to deliver various interventions. A promising start has been made in this area with a number of organisations providing training programmes such as: Incredible Years, Triple P, School Wide Behaviour Support, and Multi-systemic Therapy. There is, however, a need to build on these foundations to set up systematic training programmes that provide practitioners with the range of skills needed to implement evidence based programmes. It will also be important to develop standards to ensure that practitioners delivering evidence based treatments are appropriately trained, accredited and adequately supervised.

c) *Increased Teacher and Social Work Training*: Teachers and Social Workers are the professional groups who are in the greatest contact with children with significant conduct problems and are the most common sources of referral for children with conduct problems (65, 66). Despite the high contact of the teaching and social work professions with children with behavioural problems the amount of training teachers and social workers receive in the identification, treatment and management of childhood behavioural problems is limited. For example, the current Graduating Teacher Standards have no requirement that teachers are trained in the principles of behaviour management. It was the view of the AGCP that to install evidence based programmes for the treatment of conduct problems in New Zealand will require a substantial change in both teacher and social work education to acquaint trainee teachers and social workers with the underlying principles of evidence based interventions for behavioural disorders. In Education, a promising start has been made in this area with: a) Taumata Iti around New Zealand to introduce school principals and others to the key elements of the Positive Behaviour for Learning; b) Investment in training up to 5000 teachers in the Incredible Years Teacher programme by 2014; c) Increased funding for Teacher Training providers to introduce courses on behavioural management in the classroom. Parallel developments have occurred in the Health sector. These developments include: (i) funding the Werry Centre to provide ongoing training and support in Incredible Years Basic Parenting Programme to clinicians working in CAMHS and NGO settings, and (ii) funding for additional CAMHS clinicians in two DHBs to work closely with Special Education and CYF to deliver the Incredible Years Basic Parenting Programme and

provide additional mental health and AOD support to the most vulnerable families and whānau as they participate in the programme.

d) *The Importance of Effective Implementation:* Until recently the major focus in the development of programmes for managing conduct problems has been upon identifying programmes with established efficacy. The summary presented in Table 1 provides a clear example of this approach. However, it has become increasingly apparent that the success of such programmes depends critically on the adequacy of the implementation of the programme in practice. Research into the factors that make for successful implementation of programmes is in its early stages but already there are a number of indications of the factors which encourage the successful implementation of programmes (67, 68). These factors include:

    i) Pre-service and in service training to provide knowledge of the programme's background theory, philosophy, values and practices.

    ii) Consultation and mentoring to provide staff with the support to ensure that programmes are being delivered effectively and with fidelity.

    iii) Staff evaluation to ensure the adequacy of programme delivery skills and related aspects of programme delivery.

    iv) Organisational support and leadership to support the process of programme delivery, and to keep staff organised and focussed on the desired clinical outcomes.

    v) Evaluation of programme outcomes to assess the key aspects of the overall performance of the organisation in delivering the intervention.

    vi) Linkages with external systems to ensure the availability of the financial, organisational and human resources required to support the programme and the work of its practitioners.

In the implementation of specific interventions all of these factors will need to be taken into account and it is important that detailed implementation plans to address the issues above are developed *before* interventions are implemented. As Fixsen et al note (69), far too often in the development of mental health programmes either the poor selection of programmes or the poor implementation of programmes leads to poor outcomes for clients and wastage of public funding. It is recommended that in the development of the interventions recommended in this report, investments are made in developing detailed implementation plans which thoroughly address the issues outlined above.

3.3 *Developing Evaluations to Test Programme Effectiveness*

A critical issue in the development and implementation of the programmes described above is the development of adequate evaluations of the effectiveness of these programmes in a New Zealand context. There are three reasons why thorough evaluation in a New Zealand context is required. The first reason is to address frequently expressed concerns that programmes developed outside of New Zealand may not be effective in a New Zealand context and may fail to address the needs of specific populations such as Māori (1, 2). It is important that these issues are addressed to examine the realism of such claims. The second reason for evaluation is to ensure that programmes meet the bench marks and standards set for these programmes when these programmes are installed in a New Zealand context. The final reason is to provide the New Zealand public with good evidence on the extent to which State investments in programmes are providing value for money. The adequate evaluation of the programmes described earlier requires a three stage process.

The first stage requires adequate pilot research to examine a series of issues including: fidelity of programme delivery (67); effectiveness of intervention using before/after and single subject designs; consumer views of the programme; evaluation of the programme from a kaupapa Māori perspective.

The second stage requires the use of randomised wait list trials to examine the outcomes of young people exposed and not exposed to the intervention.

The final stage requires the longer term (2 yrs+) study of those exposed to an intervention to examine the longer term prognosis of those exposed to the treatment.

Collectively this portfolio of interventions will establish: programme fidelity; programme effectiveness including cost effectiveness in New Zealand; programme acceptability and the longer term effectiveness of the programme. This information can then be used to inform the investment process and to refine programme content. However, an important requirement for such evaluation is the need to set up a research infrastructure that has the capacity to conduct rigorous evaluation of new programmes as they are implemented in a New Zealand context. The infrastructure for such evaluation is currently being developed as part of a collaboration of University staff and the Ministries of Health, Education and Social Development. The aim of this collaboration is to develop a dedicated research unit within the Ministry of Social Development that has the capacity to evaluate interventions aimed at the prevention treatment and management of conduct problems in childhood and adolescence. This unit has been established and is currently working on the first stage of evaluating the Incredible Years Parent programme for 3-7 year olds. It is expected that this research will lead to a more comprehensive programme of research into the development and

evaluation of New Zealand based programmes for the prevention, treatment and management of conduct problems in childhood. However, the extent to which the work of this unit will be extended to evaluate other conduct problem programmes remains to be resolved.

3.4 *Concluding Comments*

In recent years, a promising start has been made in introducing evidence based programmes for the treatment and management of conduct problems into New Zealand. This has been marked by a growing involvement of Government agencies and NGOs in the development of services, training resources and evaluation capacity with most of this development being focussed on the 3-7 year age group. These developments have laid the foundations for further development of services for 8-12 year olds. Nonetheless, a number of issues remain to be addressed. The most important of these are: a) setting up organisational processes to ensure that children coming to official attention for conduct problems are treated in a consistent way that ensures access to professional assessment, treatment and monitoring; and b) increased investments in training for psychologists/psychiatrists, practitioners, teachers and social workers. In addition there is a need to develop research capacity within Government to enable newly introduced programmes to be subject to a thorough and searching evaluation to ensure the efficacy and effectiveness of these programmes in a New Zealand context. Finally, there is a need to ensure that programmes are delivered in a culturally appropriate way and in a way consistent with the principles of the Treaty of Waitangi. These cultural issues are discussed in the next section of the report.

Part 4 Te ao Māori Perspective on Understanding Conduct Problems

He awa whiria, e ekengia

Braided rivers, can be navigated

4.1 *Introduction*

4.1.1 Section four provides a te ao Māori perspective and builds on previous AGCP reports (1, 2) and earlier text in this report. The previous AGCP reports have used the principles of the Treaty of Waitangi as a foundation to understanding the obligations of the state to support tamariki, whānau, hapū and iwi. The consistent stated position recognises the unique role of Māori culture, language and values in the development of policy, as underwritten in Article 2 of the Treaty. The AGCP has used a parallel process where the AGCP provides advice on generic policy and programmes, and advice on kaupapa Māori programmes is provided by Māori expertise (Te Roopu Kaitiaki)[i]. The generic advice on conduct problems is subject to Article 3 of the Treaty whereby Māori have the right to regular services that are responsive to Māori, irrespective of their source. This report also includes Article 1 of the Treaty which stresses the underlying principle of partnership. This is significant as a fundamental aim of this project is to propose a way forward that values global and Māori considerations on understanding conduct problems – a braided rivers approach (70)[ii].

4.1.2 The purpose of this section of the report is to

1) Identify kaupapa Māori programmes for 8-12 year-old tamariki and their whānau
2) Discuss the dynamics implicit in evaluating kaupapa Māori responses and understanding evidence from a Māori worldview.

This section builds on a report, prepared by Cherrington (71) with input from Te Roopu Kaitiaki, on a te ao Māori understanding of conduct problems: *Te hohounga, Mai i te tirohanga Māori* (Te Hohounga) and proposes an evaluation framework to inform future policy development for the delivery of Māori behavioural programmes to 8-12 year-olds.

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[i] This advice was provided by Te Roopu Kaitiaki: Wayne Blissett (convenor), Mere Berryman, Dr Hinemoa Elder, Prof Angus Macfarlane, Materoa Mar, Peta Ruha. (Support was provided by Robbie Lane from the Ministry of Social Development and Brian Coffey from the Ministry of Education)

[ii] The braided rivers metaphor has its roots in the New Zealand Collaborative Action and Research Network (NZCARN) hub, a member of the worldwide Collaborative Action Research Network (CARN). Through leading international academic Bridget Somekh, the Network among New Zealand universities is designed to change the way educators perceive, organise, manage and consume educational research within an Action Research tradition complemented by dynamic approaches, including kaupapa Māori

4.1.3 The kaupapa Māori programmes that will be introduced (as emerging or sustaining) later in this section of the report are premised on landmark frameworks developed over the last three decades to assist in understanding te ao Māori perspectives in socio-psychological thinking and theorising. These frameworks include:

- *Te Whare Tapa Whā* – developed by Dr Mason Durie in 1982, Te Whare Tapa Whā provides a Māori philosophy of health and wellbeing. This model is underpinned by four dimensions – te taha hinengaro (psychological health); te taha wairua (spiritual health); te taha tinana (physical health); and te taha whānau (family health).

- *Te Pae Māhutonga* – is a more recent model developed by Durie (72) to bring together elements of Māori health promotion. The four central stars of the Southern Cross (Te Pae Māhutonga) are used to represent the four key tasks of health promotion and named to reflect particular goals of health promotion: mauri ora and waiora (inner vitality, and the spiritual element that connects human wellness with external environments), toiora (healthy lifestyles), te oranga (participation in society). The two pointers are nga manukura (leadership) and te mana whakahaere (autonomy).

- *Te Whāriki* – is the Ministry of Education (73) early childhood curriculum policy statement. The framework of Te Whāriki provides a sociocultural context for tamariki/children's early learning and development. It emphasises the learning partnership between kaiako/teachers, parents, and whānau/families. Kaiako/teachers weave a holistic curriculum in response to tamariki/children's learning and development in the early childhood setting and the wider context of the child's world. Many of the original conceptualizations that underpin the Te Whāriki curriculum were conceived by noted educators Tilly and Tamati Reedy (74).

- *Te Wheke* – developed by Rose Pere (75), the concept of Te Wheke, the octopus, is used to describe family/whānau health. The head of the octopus represents te whānau, the eyes of the octopus represent waiora and each of the eight tentacles represent a specific dimension of health. The dimensions are: wairuatanga – spirituality; hinengaro – the mind; taha tinana – physical wellbeing; whanaungatanga – extended family; te whānau – the family; waiora – total wellbeing for the individual and family; mauri – life force in people and objects; mana ake – unique identity of individuals and family; hā a koro ma, a kui ma – breath of life from forebears; whatumanawa – the open and healthy expression of emotion.

- *Puao-te-Ata-tū* – is a 1986 report, arising from work led by John Rangihau, to advise government on approaches that meet the needs of Māori with regard to policy, planning and service delivery through the Department of Social Welfare. The report called for a 'comprehensive approach' by central and local government, in conjunction with tribal

authorities and the community at large to address the cultural, economic and social problems clearly evident in major cities and other identifiable areas.

- *He Māpuna te Tamaiti* (the unique disposition of the child) – is a model of holistic human development and learning, initially developed by Grace (76) and then expanded (77). In this model, cornerstone cultural constructs establish the context for positive interactions between students and teachers, students and students, and whānau members and the school. Essential to this framework is the uniqueness of each person, in terms of their mana (potential), their mauri (life essence), and their wairua (spirituality). These metaphysical constructs are said to have originated from ancient times and to have been passed down through whakapapa (genealogies). They are therefore classified as tapu (accessed only under careful restrictions) and must be treated with ultimate care and respect.

4.2 *Culture: Out of the past – into the present.*

4.2.1 Cultural Understandings

Cultural diversity and community are complex concepts for most populations. This complexity becomes even more acute in the context of children with conduct problems who are Māori. New Zealand's history and the principles of the Treaty of Waitangi have direct implications for understanding and responding to conduct problems among tamariki. Similarly, culture is fundamental to any process of socio-psychological understandings in terms of making meaning of how people think, feel and behave (78). A culturally-informed understanding of conduct problems is critical in terms of enabling professionals to make relevant decisions, provide sound advice and devise more effective interventions for individuals and for whānau.

Culture is a set of values and mores that are inculcated as a consequence of being a part of, or having regular proximity to, a group of people. One of the most important features of culture is that in addition to its inherent qualities, it is also something that is learned. Because aspects of culture are learned, they differ from context to context, from group to group. Ways of doing things in one culture may also be found in others, yet it may bear a different significance in a different context, for a different group. Although there has been some attention to the role of cultural diversity in the general education literature, it is only recently that much momentum has been achieved in focusing attention on cultural diversity across conduct problems.

From the time formal schooling emerged in this country, one function of schools has been to act as a "homogenising agent" for the indigenous people (79). This function has perpetuated the values, beliefs and traditions of the mainstream culture through curriculum content and through intervention strategies introduced and applied by professionals. Cultural differences were characterised as detrimental and seen as barriers in obtaining promising status and value within the New Zealand educational and psychological 'conventions'.

It has been well documented that young Māori are at increased risks of conduct problems and associated antisocial behaviour (80-82). Estimates from the Christchurch Health and Development Study suggest that rates of childhood conduct problems were over twice as high in young Māori, with rates of police contact and arrest being up to five times higher (83, 84). These findings highlight the need to develop policies and programmes that have the potential to reduce disparities in rates of conduct problems between Māori and non-Māori young people. Behind this concern there have been ongoing philosophical and epistemological debates about the origins of ethnic disparities in crime and the appropriate methodologies for reducing these disparities (85). In recent years, these debates have tended to polarise into two general philosophical perspectives. The first perspective takes the view that methodologies and programmes developed within a generic western science paradigm provide the best hope for addressing conduct problems in young Māori. This perspective is supported by the reviews and conclusions presented in Parts 2 and 3 of this report. The second perspective is a kaupapa Māori model; one that insists that effective programmes for Māori must be grounded in Māori culture, tradition and values (82, 86-88). It is argued here that the cultural imperatives inherent in kaupapa Māori models have the capacity to add meaningfulness and sustainability to the programme content of generic programmes with Māori clients.

In New Zealand there is often a clarion call by educators, social workers and health providers to design and identify essential cross-cultural competencies for professionals and whānau who work with or who are affected by children experiencing turbulence in their lives. This call is, currently, driven by several compelling movements in communities and professions, in particular He Korowai (89), Ka Hikitia (90) and Whānau Ora (91). While the philosophical and cultural imperatives embedded in these three movements are strong conceptually, there is little information that is able to articulate and define the cross-cultural competencies needed by professionals to work with Māori children with conduct problems and their whānau. Nor were these movements designed with such considerations in mind. That observation having been made, some programmes which derive their primary meaningfulness from te ao Māori, the Māori world have been developed in recent times. A commonly held perception is that these programmes are not systematically nor scientifically grounded, hence the reason for a discussion on the issue of ‘evidence’ in section 4.6. The task facing present day New Zealand is that of finding a balance between generic western science programmes and kaupapa Māori programmes to ensure that the health and wellbeing of tamariki is protected and that existing Māori and non-Māori disparities are addressed.

Throughout this section of the report there is a common theme about the need for programmes aimed at reducing conduct problems in tamariki to be respectful of and responsive to kaupapa Māori perspectives, while not being dismissive of the contributions that western science can make.

Mutual recognition and collaborative decision-making about efficacy are integral to success in responding to all young people experiencing conduct problems in New Zealand.

4.2.2 Cultural developments: Te Wehenga

The discussion in parts 2 and 3 of this report presents a conceptualisation which in the main treats conduct problems as a form of behavioural disorder or pathology that can be addressed by providing appropriate treatment or intervention programmes. This view of conduct problems is not consistent with the ways in which Māori have traditionally viewed the origins of and responses to behavioural disorders.

The Māori view has been reviewed in Te Hohounga (71) which presented a model of the development of conduct problems from a kaupapa Māori perspective. Using the kōrero pūrākau of Ranginui and Papatuanuku (the primeval parents of Māori mythology) as a metaphor, Te Hohounga argues that the origins of conduct problems and raruraru (unsettledness) lie with the distress and consequences of separation (Te Wehenga). The report observes that "working with Māori who have conduct problems can be viewed as dealing with those tamariki and whānau where separation (from identity) is the greatest influential factor" (p 16).

From the basis of Te Wehenga, Te Hohounga (71) highlights the factors that have acted to increase the vulnerability of tamariki and whānau to the development of conduct problems. These factors reflect the adverse consequences of colonisation on Māori culture, language and values. They include cultural disconnection and loss of identity, erosion of whānau wellness and the negative impacts of racism, discrimination and institutionalism. These factors are specific to Māori and differ from the "risk factors" that have been identified in western-based research as precursors of conduct problems. In writing on this issue, Durie, Cooper, Grennell, Snively and Tuaine (91) note:

> *…current data suggest that whānau members face a disproportionate level of risk for adverse outcomes as seen in lower standards of health, poorer educational outcomes, marginalisation within society, intergenerational unemployment and increased rates of offending…. In addition some studies have shown that even when social and economic circumstances are taken into account Māori individuals still fare worse than non Māori …. Whatever the explanation "being Māori" introduces a risk factor that cannot be entirely accounted for by social or economic disadvantage* (p15).

These considerations suggest that from a Māori perspective the explanation of higher rates of conduct problems amongst Māori cannot be found solely in conventional western science-based explanations. Rather, it is suggested that the explanations lie in factors specific to the history of

Māori following colonisation and the adverse effects of these factors on whānau ora or wellbeing (92).

4.2.3 Mai i te Tirohanga model and four tenets

The Mai i te Tirohanga (towards a Māori view) model, developed by Te Roopu Kaitiaki and presented in the Te Hohounga (71) report, is illustrated in Figure 1 below (reprinted with permission).

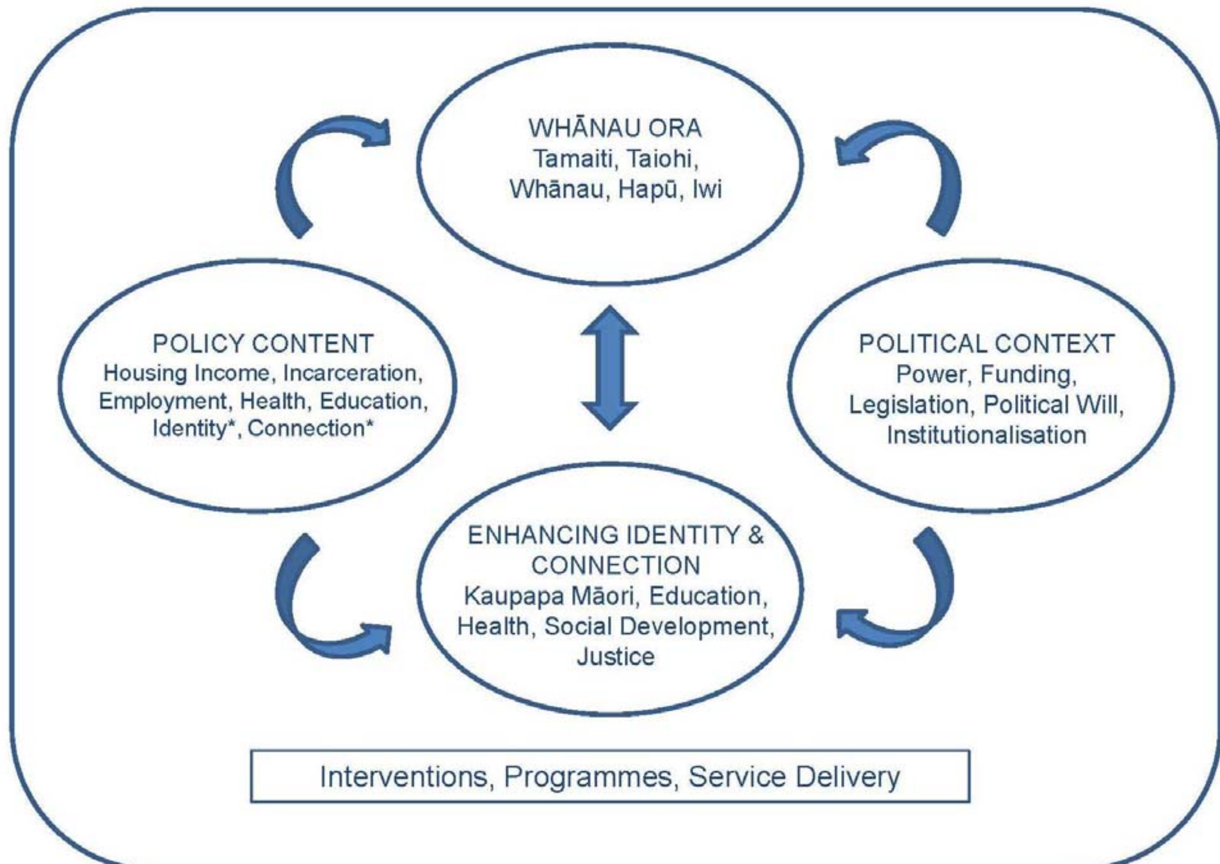

Figure 1: Four interconnecting tenets of Māori provision

The Mai i te Tirohanga model has four major tenets. Firstly, whānau ora or family wellbeing is the goal for Māori whānau, hapū and iwi, especially where there are tamariki experiencing conduct problems. At a macro level, the whānau ora and wellness being sought, is influenced by sociological factors such as housing, income, employment, rates of incarceration, health status, educational experiences, identity and connections. A further macro level influence is the political environment where legislation, funding, sharing of power and resources, political good will and institutionalism all have an impact. The third influence is that of practitioners, providers and policy makers where there is opportunity to focus on enhancing identity and connections. Sectors such as health, education, social development and justice have responsibilities to enhance identity and connection through provision of kaupapa Māori services.

4.3 *Principles for programme development*

4.3.1 Programme landscape

This section initially discusses the current landscape of responses to conduct problems, and then transitions to the principles needed to ensure western science-based programmes are responsive for tamariki. Following that, a brief outline of what makes a programme distinctively kaupapa Māori, is offered.

There has been a large body of research into the development of programmes for the treatment, management and prevention of conduct problems in childhood (41). Two features dominate this body of knowledge. First, it is based on a western science paradigm which pays little attention to indigenous knowledge. Second, it is dominated by research conducted within the US. These two features pose major issues for the translation of this body of knowledge to meet the needs of Māori and there have been ongoing debates about the extent to which science based research originating predominantly in the US can be translated to meet the needs of Maori. These issues are further complicated by the level of investment made into programme development in different contexts.

Globally-based research into the development of effective interventions and programmes, covers all research on theory and practice, whether by practitioners or researchers. This includes the landscape of pedagogy, curriculum, theoretical constructs, and extensive research methodologies – usually enabled by generous resourcing.

Programmes on the mainstream New Zealand landscape, while not as wide-ranging, bear similar characteristics. Like their global counterparts, they cross the boundaries of theory and practice with a focus on investigation of the interventions with a view to evaluation or improvement. However, unlike their global counterparts funding and research resources are limited.

These problems of resourcing and recognition are further increased for Māori-developed programmes that strive to use a similar pathway; yet a mixture of success and failure are often experienced. Programmes are almost always impeded by a lack of resourcing, and are subject to criticism related to scientific validity and bases of evidence, narrowness of samples and the like. These problems are exacerbated by the small numbers of trained and experienced kaupapa Māori researchers, despite growth in completion rates of Māori post-graduation qualifications.

All of these factors conspire to place kaupapa Māori programmes and research at a disadvantage when compared with the body of science based research emanating predominantly from the US. In real terms, the landscape for Māori programmes should perhaps be seen to be practice-based

research situated between academia-led theoretical pursuits and taonga tuku iho (legacies handed down from tipuna). Given this context, advocates argue that resources should be distributed much more equally than currently and people should not have to adhere to one model that is considered 'normal' or 'right' to enjoy a fair share of recognition. In the development of new or reconstructed programmes over time, a number of theories have informed programme developers about structure, content and processes. Not everyone feels comfortable with all approaches, and culturally orientated pathways sometimes call for courage to take risks within contexts considered different. The quest for shared understanding within contexts of practice evokes tensions between competing conceptions of the conventional knowledge bases and the traditional knowledge bases for Māori, known as mātauranga Māori[iii]. Figure 2 illustrates the approximate differences across programme development.

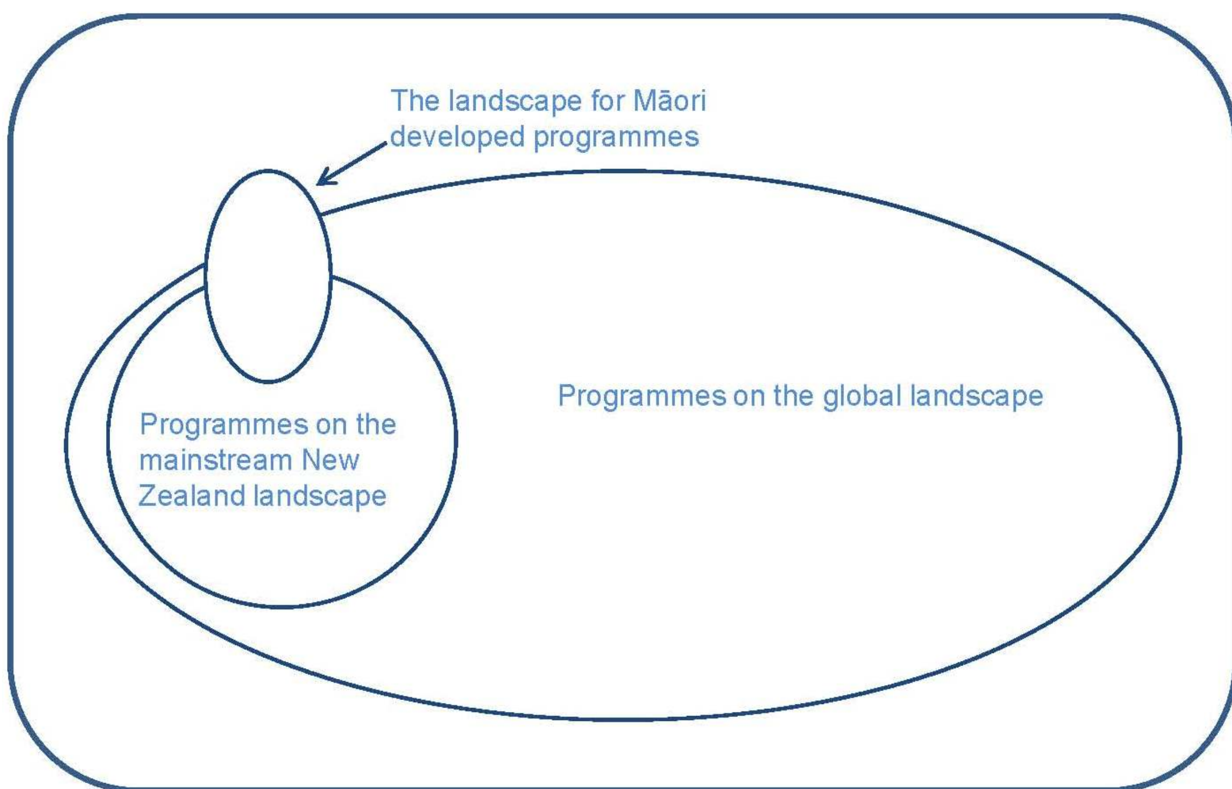

Figure 2: An uneven playing field?

4.3.2 Making western science-based programmes responsive for Māori 8-12 year-olds

The importance of western science-based programmes being culturally responsive and safe for the people who are clients of the programme, has been emphasised in New Zealand and international literature repeatedly over the last two decades (93, 94). The literature shows when local cultural responsiveness has been included in programmes, better outcomes are achieved (95).

[iii] Ideas, interpretations, theories and modifications around ways of knowing; made through generations and applicable in today's educational, health and social landscapes

In New Zealand, the practical task of making everyday environments such as schools, health practices and social service settings (where the predominant culture is normally Pakehā) responsive and effective for Māori, is the subject of a further list of published papers and books (88, 90, 96-98). However, broad outcome data for Māori (and for other minority populations) shows that New Zealand is still grappling with this challenge.

This section of text drills down to a further level of challenge: that of working with western science-based programmes, which have their own requirements around fidelity, to make them culturally responsive and safe. There is international literature on this more specific issue (95, 99, 100) and also some New Zealand literature on western or generic programmes that been implemented in New Zealand with cultural enhancements (101-104). Te Hohounga (71) discusses findings from this literature in some detail and observes that generic programmes have been implemented in New Zealand prior to data on effectiveness for Māori being available.

A review of the international literature in this area (104) notes variation in how the terms "cultural responsiveness" and "cultural appropriateness" are used and, in particular, who determines cultural appropriateness. It reasons that both programme selection and delivery, "*cultural input to an existing programme should be initiated, conceptualised and defined by Māori from the outset, and then throughout all stages of programme implementation*" (104).

A further important distinction is between programmes which are culturally appropriate and those which are culturally responsive. Te Hohounga (71) notes the following key points for determining the cultural appropriateness of programmes (p80) and components that enable a programme to be culturally responsive (p94), and these are outlined in Table 1.

Table 1: Cultural appropriateness and responsiveness: A comparison

Cultural appropriateness Refers to programme selection and content, ie: do programme values, format and content align with the cultural values and practice of the target group? It includes:	**Cultural responsiveness** Refers to the delivery of the programme and the ability to respond to fluid, authentic situations in ways that resonate with (and are therefore culturally appropriate) <u>and</u> affirm the culture of clients. It includes:
Consultation with key groups in selection process	Māori representation at a governance level
Inspection of programme content to determine accuracy	Major consultation on the content of programme
Client satisfaction surveys	Implementation of culture specific topics

Statistical comparison of rates of participation	Ecological approaches such as Te Whare Tapa Whā
Māori participation in planning of programmes	A focus on whānau ora
Being able to demonstrate whānau inclusive principles such as whanaungatanga and manaakitanga	Integral Māori processes and protocols such as pōwhiri and whakawhiti kōrero
A holistic approach to treatment plans that addresses cultural, clinical and whānau needs	A whānau liaison worker, advocate, therapist are intricate to the programme
An environment that can assist in enhancing identity and connections such as classrooms, schools or government departments	An environment that can assist in enhancing identity and connections such as marae or tūrangawaewae, as well as schools etc.
A facilitator with the right credentials	A facilitator with the right credentials

Cultural appropriateness and responsiveness are often measured by matched comparisons and measured gains by those who participated in the programme. Programmes evaluating gains using instruments alternative to norm sampling – as kaupapa Māori programmes often have to do - should identify a set of conditions that are usually present in programmes that work. The personnel might change (qualifications or ethnicity of leading figure), or the venue might alter (school, marae, historical island) – but the outcomes have a consistently better chance of success if the concepts and values are derived from a Māori worldview and expressed by way of the components listed in Table 1.

It is difficult to determine whether the cultural issue for many professionals is individual or organisational. It might be difficult for individual professionals to 'think outside the box' particularly where there is limited institutional provision that leads to border crossing and the development of cultural understanding.

4.3.3 Integral elements for kaupapa Māori programmes

This section shifts the focus away from western science programmes that are adapted for Māori, to programmes that originate from and are rooted within te ao Māori. The key components that define programmes as 'kaupapa Māori' programmes emanate from Māori worldview philosophies and perspectives, ie: kaupapa Māori values, beliefs, and concepts, as well as Māori-preferred processes and practices. These components serve to 'unite' them all as uniquely 'Māori', and ensure that there will be 'cultural fit' for those to whom they are delivered (100, 102-108). These programmes are more likely to resonate with whānau as they draw upon the uniqueness of Māori culture, its ethos, and delivery mechanisms. The contention is that programmes must cover four fundamental areas if the service is to be sufficiently grounded so as to take on the form of kaupapa Māori.

- Tapu: This cultural marker is concerned with the sanctity of the person; the special attributes that people are born with and that contribute to defining one's place in time, locality and society. Often the abuse of the sanctity of the tamaiti might be caused by the erosion of Māori values, and tapu is often the corrective and coherent force that can reinstate wholeness and balance. Kaupapa Māori programmes value the sanctity of the Tamaiti.

- Tikanga: This cultural marker is concerned with 'the Māori way of doing things'. According to Mead (109) tikanga are tools of thought and understanding that are constituted to help organise behaviour and provide some predictability in how certain activities are carried out. Tikanga would include what Linda Smith identifies and explains as Māori ethics within practice (5).

- Taonga tuku iho: This cultural marker is concerned with the knowledge base of mātauranga Māori – ideas, interpretations, and modifications made through generations and applicable in today's education conundrum. Space for Māori knowledge in curricular and programmes is at the centre, not at the margins.

- Tino rangatiratanga: This cultural marker is concerned with self-determination and is counter-hegemonic in the sense that curricular and programmes are expressed by Māori. Tino rangatiratanga is a dynamic construct in that it is about removing inhibitions and recognising the dignity of all who are involved in the exploration of good outcomes.

These four fundamental areas should not be considered in isolation - they coexist; they also vary together, but in patterned ways (110). To take this perspective is to be in tune with a social constructionist approach in programme development. Such an approach will assert that these cultural markers draw from many sources and experiences that are often contrary to 'essentialist' formations that have been conventional traditions of thought for so long. In Māoridom, these cultural markers are not just natural or stable givens, but they have become emblematic through the 'way of doing things' by Māori in particular circumstances and places, over time. These fundamentals are beneficial – and therefore advantageous – for determining the distinctiveness of culturally responsive programmes.

4.4 *Existing kaupapa Māori programmes*

4.4.1 Identifying kaupapa Māori programmes for 8-12 year-olds

An ideal list would be that of programmes specifically designed for Māori children placed at risk by developing conduct problems, which have been well resourced and been rigorously evaluated many times and, where valid, extensively replicated. However, as demonstrated above in Figure 2, this is not a present day reality for kaupapa Māori programmes.

As part of the preparation for this report a stock-take was undertaken of existing services using a te ao Māori platform which had the potential to address conduct problems in tamariki and whānau. This stock-take was conducted using informal networks and existing reviews (97) to select the following types of programmes and frameworks:

1) programmes which explicitly respond to conduct problems in 8-12 year olds
2) frameworks that enable practitioners to assess needs and plan kaupapa Māori responses to conduct problems in a consistent and comprehensive manner.

4.4.2 *Classification versus continuum*

All of the programmes outlined in Table 2 include the 8-12 year-old cohort of interest to this overall report. However, Grace (76) observes that "Māori traditional approaches to learning and teaching did not group students on the basis of narrow age bands. 'Year groups', which are standard practice in today's schools, accentuate comparisons and contrasts between high and low achievers, between winners and losers. Such groupings can also undermine Māori cultural relationships such as tuakana-teina[iv]. Larger class groups formed from narrow age bands can become sites for exclusion rather than inclusion, in that they seek to reduce greatly the level of diversity that is found in cross-age groups. Narrowing the diversity in this way may result in teachers and students in some classes being less able or less willing to cope with students "who do things differently" (quoted in (77), p110). Tuakana-teina relationships in the wider whānau or hapū are especially important in the 8-12 year cohort when tamariki start testing boundaries within their immediate whānau setting.

A kaupapa Māori view does not necessarily seek to classify and define programmes or intended clients, into distinct groups or types. There are differences - some programmes are more intense than others, or might have been initiated by schools or by whānau, but differences tend to be more relative rather than absolute. Figure 3 depicts this 'more relative' status of the programmes. While action for behavioural issues might have been initiated by a school, kaupapa Māori programmes will implicitly expect to engage with whānau, hapū and wider community agents. Overall, behavioural responses are seen as a continuum where the intensity of any specific intervention lifts in response to the needs that emerge.

[iv] Where older and more experienced siblings or relations have a responsibility for sharing their knowledge and skills with their younger or less-experienced siblings and relations

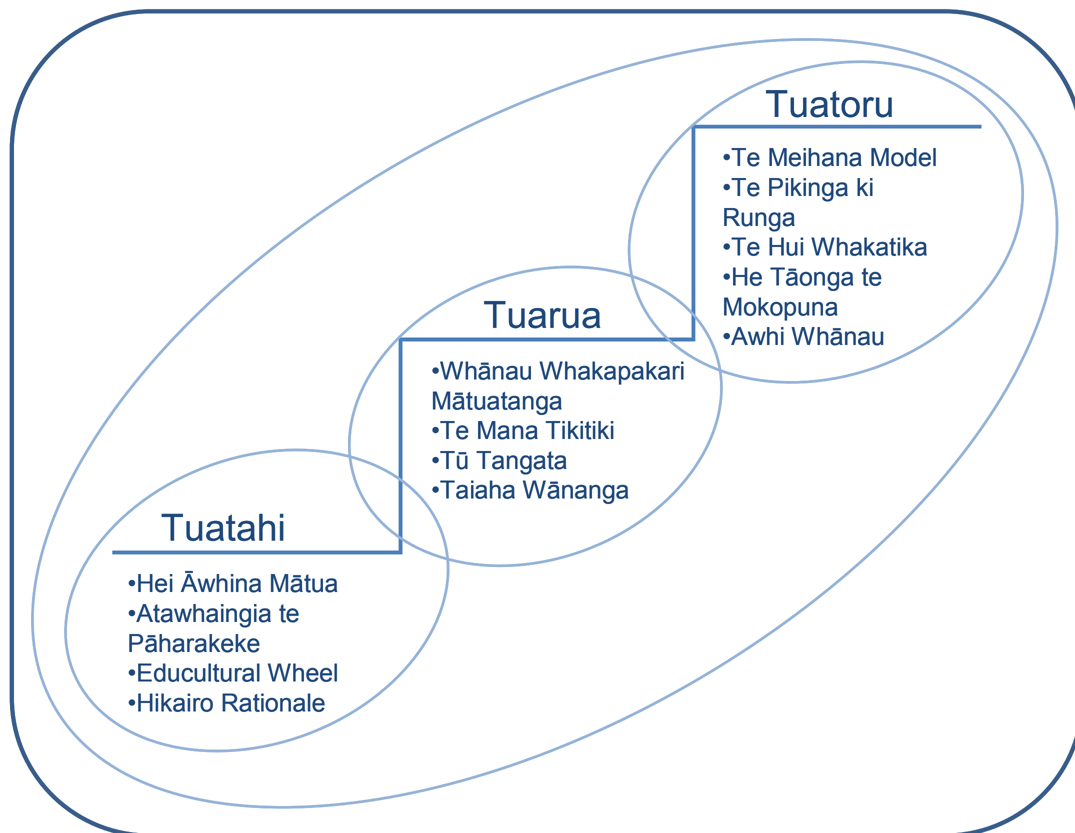

Figure 3: Ngā poutama e toru

Notwithstanding the 'relativity' status of the kaupapa Māori programmes, it remained compelling to articulate these more definitively by the way of an overarching framework as presented in table 2. This framework is devised to guide practitioners via a range of options in their work with tamariki with conduct problems in schools (such as the Educultural Wheel); via tools that describe step by step considerations for what, how and where to engage when conduct problems emerge in the wider ecological environment (such as Te Pikinga ki Runga); and via parenting programmes that describe specified content taught in specific sessions (such as Whānau Whakapakari Matuatanga).

Table 2 is used to show key elements of selected programmes. Poutama (stepping stones) are used to indicate typical levels of intensity of the programme - tuatahi being the least intrusive and with the intensity increasing toward tuarua and tuatoru. The poutama stepping stones are a continuum and the same programme may offer a more or less intense response, dependent on need.

4.4.3 Sustained and emerging classifications

A reality for kaupapa Māori programmes is that, unlike the international generic programmes, there is not a large amount of published outcome evaluations (the evidence base for Māori responses is

further discussed in section 4.6). In view of the lack of published evaluations, the table presented below does not use the “recommended” and “promising” designations adopted in section 2 of this report. The two terms more useful to this section are “sustained” and “emerging”. The table indicates what literature has been published on the selected programmes, none of which includes a randomised controlled trial. Evaluation information where available has guided the designation of sustained or emerging.

The definition of “sustained” in this section has been derived from the Murrow, Kalafatelis, Fryer, Ryan & Dowden (111) evaluation of Tū Tangata which sets out characteristics that make a programme sustainable. Sustained programmes have:

- been continued over a period of time (eg 5 -10 years):
- met user expectations (and users intend to continue programme)
- overcome constraints (eg funding, availability of qualified staff) in the short-term at least
- offered ongoing support (eg training, quality assurance) provided from national or regional sources.

The definition of “emerging” used in this section does not have an obvious lineage in literature but is apt for the discussion of kaupapa Māori programmes. Emerging programmes are those that have:

- been recently developed and gained support from local communities and whānau
- not yet have a clear definition of content or method, or supporting resources developed
- not yet been reproduced in other sites or may be unique to local needs and opportunities.

Table 2 summarises the programmes and frameworks selected as responding to conduct problems in 8-12 year-old tamariki, and includes:

1) programme level: tuatahi; tuarua; tuatoru
2) programme status of emerging or sustained
3) programme context in terms of places of connection (whanau/hapu/Iwi; kaiako/kura; taimati) and how knowledge is shared and held (tuhituhi; kete; other)

Table 2: Kaupapa Māori programmes

Programmes	Places of connection			How knowledge is held/shared			Status: Sustained/ Emerging
	Whānau/ hapu/ iwi/	Kaiako /Kura	Tamai ti	Tuhituhi (text)	Kete (manual)	Other[1]	
Poutama tuatahi							
Hei Āwhina Mātua	✓	✓	✓	Glynn et al (112)			S (1990s)
Atawhaingia te Pā Harakeke	✓		✓	Rokx et al (92)	✓		S
Educultural Wheel		✓	✓	Macfarlane (88)			E
Hikairo Rationale		✓	✓	Macfarlane (97)	In progress		E
Poutama tuarua							
Whānau Whakapakari Matuatanga	✓		✓	Herbert (113)			E
Te Mana Tikitiki	✓	✓	✓				E
Tū Tangata	✓	✓	✓	Murrow et al (111) Moewaka Barnes & Barrett-Ohia (114)	✓	✓	S (1995)
Taiaha Wānanga	✓		✓	Workman (115)			S
Poutama tuatoru							
Te Meihana Model	✓		✓	Pitama et al (116)			S
Te Pikinga ki Runga	✓	✓	✓	Macfarlane, S. (117),			S
Te Hui Whakatika	✓	✓	✓	Hooper et al (118), Bateman & Berryman (119)			E
He Tāonga te Mokopuna[2]	✓		✓	Cargo et al (120)			S (2001)
Awhi Whānau (Te Mana)	✓	✓	✓	Haar (121)			E (2007)

[1] Other includes video, website, purpose-built software
[2] He Tāonga te Mokopuna associates with the Atawhaingia Te Pā Harakeke family of programmes

4.5 *Summary of frameworks, assessment tools and programmes*

4.5.1 Poutama tuatahi

1) *Hei Āwhina Mātua*

Hei Āwhina Mātua was developed in the early 1990s by kaumātua, whānau, Kōhanga Reo kaiako, and staff and special educators in Tauranga. The programme focuses on the ways in which schools and communities can establish responsive learning environments that value and respect all students, and assist them to construct a positive view of themselves and their capacity to

succeed. The Hei Āwhina Mātua process includes checklists being filled out by the teachers, whānau members and a group of the mature students from the school to identify what the problem behaviours are occurring, and when and where. Additionally, student achievement and participation (attendance, stand downs, expulsions, Resource Teacher Learning and Behaviour (RTLB)/Special Education (SE) referrals) data are gathered across the school.

The checklists, observations, achievement and participation data are then analysed and feedback is given at a combined whānau and school community hui. A second hui, with facilitated professional development using specialised Hei Āwhina Mātua resources, is held to help both teachers and parents to be more effective in addressing the issues that have emerged. The process is repeated at an agreed time to check progress and determine further action.

2) *Te Atawhaingia Te Pā Harakeke*

Te Atawhaingia Te Pā Harakeke aims to address the impact of domestic violence on whānau, hapū and iwi and their development, based on a Māori cultural framework (71, 92). Atawhaingia Te Pā Harakeke is a whānau development training and support programme for Māori and Iwi education, health and social service organisations. The programme is delivered by the Ministry of Education training unit, Te Kōmako. Atawhaingia Te Pā Harakeke delivers training to over 200 providers and has done so for 10 years. It does not directly deal with tamariki and whānau, but rather the kaupapa whānau. Te Atawhaingia Te Pā Harakeke seeks to up-skill facilitators of Māori parenting programmes based on Māori cultural frameworks. The parenting programme that emerged from Atawhaingia Te Pā Harakeke is called Hākuitanga/Hākorotanga. It is briefly described on page 60 and is currently predominantly used for families with children younger than 8-12 years.

3) *Educultural Wheel*

The Educultural Wheel (88) is a tool for practitioners, which sets out five key cultural concepts, showing their interconnections by presenting them as a wheel. At the hub of the wheel is the Pūmanawatanga (heart beat) which in this context means alive and dynamic, and conveys the morale, tone and pulse of the classroom or setting for the behavioural intervention. This hub or heart breathes life into the other four concepts:

- whanaungatanga (building relationships, possibly using hui whakatika (described below), involving whanau, community and learning co-operatively)
- manaakitanga (the ethic of caring, creating safe environments (eg classrooms) and being attentive to what is happening for individual students as well as the group)
- rangatiratanga (also ihu or assertiveness, teacher effectiveness, establishing mana and communicating their enthusiasm to tamariki)

- kotahitanga (the ethic of bonding, use of group agreements, group rewards, rituals, and belonging to a bigger context).

The premise of the Educultural Wheel is that infusing these five cultural concepts and strategies, when working with groups of tamariki, is likely to have a positive effect on client and practitioner, because cultural referents are employed. Acknowledging these cultural referents signals to Māori that their culture matters.

4) *Hikairo Rationale*

The Hikairo Rationale (88, 97) is a tool for practitioners and is appropriate for working with Māori and non-Māori, though its guiding values and metaphors come from a Māori worldview. It is named after a Ngāti Rangiwewehi Chief who achieved a peaceful solution to conflict between tribes through calm assurance and assertive dialogue and negotiation. The rationale comprises seven elements that overlap.

- Huakina mai (opening doors, avoiding polarised communication, seeking connection with whanau and involving them in discussions and decisions about their tamaiti).

- Ihu (being assertive, the ability to stand up for, and act in the best interests, of self or others, assertive communication as modelled by kaumatua and kaikorero in Māori protocols, mana used to bring about change).

- Kotahitanga (seeking collaboration and unity, linking people and acheiving a sense of togetherness, home and school working together to create a healthy climate for the development of tamariki).

- Awhinatia (helping learners, using restorative practices (eg Hui Whakatika -see below), focus on consensus and reconciliation).

- I runga i te manaaki (caring that pervades, providing a socially and culturally safe environment, reciprocal respect, understanding and valuing of people).

- Rangatiratanga (motivating learners, using co-operative structures with inherent motivational aspects).

- Orangatanga (creating nurturing environments, enhancing the dignity of tamariki and practitioner, use of social bonds that draw positivity, enable the mauri (life force) of the tamaiti to be vibrant and confident).

4.5.2 Poutama tuarua

1) *Whānau Whakapakari Matuatanga*

Matuatanga Whānau (113) has been developed in the late 1990s by Averil Herbert with support from the Apumoana Marae, the Rotorua branch of the Māori Women's Welfare League and advice from kaumatua over four years. Fundamental components of internationally recognised standard parenting training programmes were identified as child development, communication, positive interactions (p88). Sessions teaching each of these topics were developed. In addition, based on research among kaumatua, Māori service providers and Māori parents, further material on whakapapa, whanaungatanga and awhinatanga was added.

The programme was delivered over three sessions as part of a longer Parenting and Life Skills delivered by Māori Women's Welfare League. Some parents attended more than one set of three sessions and showed further gains in parenting (p133). Delivery involved use of overhead projector slides with discussion and insights shared from participants. Research evaluation showed that culturally adapted parenting programmes were as effective as the standard programme - but rated as more enjoyable. The level of enjoyment is important as it encourages attendance and retention in programmes, and therefore better outcomes

2) *Te Mana Tikitiki*

Te Mana Tikitiki is a joint venture between Ngāti Whatua and Ministry of Education, SE in Auckland City and involved consultation with people in various Ngāti Whatua and Ministry of Education roles. It can be described as a continuum of extra support to build healthy learning environments for tamariki and whānau. The continuum includes three specific elements. The first is a study support centre, a room (often a classroom) run by Ngāti Whatua with a behaviour support worker to assist children provided by SE. Second is the resilience net of systemic support which includes: home-school partnering; mentoring; teacher appropriateness; cultural appropriateness; positive role models. The third level is the Te Mana Tikitiki interactive programme. Entry to the interactive programme (for students who have been referred to the behavioural service) involves a process of school consultation, parental consent and negotiation for teaching space. The programme includes: tikanga o te marae; mauri toa; tikanga waka; life skills; arts; social skills, with an emphasis on Māoritanga and kōrero pūrākau. The interactive element is delivered by a team comprising SE staff (eg a behaviour support worker who manages face to face contact with tamariki) and a Māori Service co-ordinator.

3) *Tū Tangata*

The Tū Tangata programme was developed in 1995 (111) by a small group of people led by Kara Puketapu, in response to issues that Parkway College in Wainuiomata was experiencing at that time. Tū Tangata means "standing tall". The initial focus was on improving the education of Māori

students and leaders such as Puketapu believed schools had become places of isolation, separating the student from their whānau and their community. The overarching goal of the Tū Tangata programme is to improve the education of young people, by bringing community people (parents/ whānau of students) into schools to work alongside the students, all day, every day in their classrooms, to increase students' feelings of self-worth and to keep them at school and on task in their school work. It is expected that many of the students targeted for Tu Tangata will be Māori, however the programme aims to assist all students in the school as needed.
There are three elements to Tū Tangata when fully operational, however many schools use some or only one component:

- an education support person recruited from the community
- physical space (eg a classroom) as a Tū Tangata Centre
- computer software that tracks individual students.

In the last evaluation (111), 21 schools were operating the Tū Tangata programme and received funding through the Ministry of Education Innovations Funding Pool. The evaluation found that:

> *The programme is viewed positively by schools, and it is predominantly considered to be a successful programme. The areas in which it is most effective are in developing the links between home and school, improving the tone or climate of the school, and up-skilling members of the community through their role at the school.*

4) *Taiaha Wānanga*

Taiaha Wānanga (also known as Mau Rākau) began in 1980 when Mita Mohi started taking groups of young Māori for a week of training in the art of taiaha (Māori long staff) which could be described as a form of indigenous martial arts (115). The programme is intensive, operating for 16 hours a day for five and a half days (about 80 hours). By 1997, an estimated 20,000 young men had been through the programme, with participants as diverse as prison inmates and Rhodes scholars. As well as teaching taiaha skills, the wānanga immerses participants in tikanga Māori protocols and values, with tutors who model the desired attitudes and behaviours. The staff structure has four levels of tutors and opportunities for ongoing involvement for participants to return as participants and eventually as tutors. The context is intensely communal as tamariki work together at a campsite to prepare food, eat, sleep and kōrero together. Workman's study points out the alignment of Taiaha Wānanga's philosophy with 1990s research on characteristics of effective rehabilitation programmes. He notes that the programme includes behavioural techniques (modelling desired behaviours, opportunities for practice, rewarding good behaviour), cognitive techniques, active teaching and addressing social behaviour. Workman argues from anecdotal data (and from supporting letters, for instance from a High Court judge) that the programme is highly effective.

4.5.3 Poutama tuatoru

1) *Te Meihana Model*

Te Meihana Model is an applied and peer reviewed framework developed by Pitama, Robertson, Cram, Gillies, Huria & Dallas-Katoa (116), particularly for the health sector but it is also used in the teaching context. It encompasses the four original Te Whare Tapa Whā cornerstones (122) and inserts two additional elements. The added dimensions are: Taiao (physical environment) and Iwi Katoa (societal context). These form a practice model (alongside Māori beliefs, values and experiences) to guide clinical assessment and intervention with Māori clients and whānau accessing mental health services. This model was developed in three phases over approximately 12 years. It has been in use since 2007. Te Meihana model teaches practitioners to identify the whānau as the centre of the assessment and intervention processes. This ideology locates the identity of Māori within a collective. It challenges the practitioner to see an individual as part of a whānau and to explicitly engage with and utilise the whānau as part of assessment and intervention.

2) *Te Pikinga ki Runga*

Te Pikinga ki Runga (117) is an assessment, analysis, and programme planning framework, specifically intended to guide practitioners in their interactions when working with Māori tamariki and their whānau. The framework was originally developed to guide work with those exhibiting severe and challenging behaviours in education settings but is now also being implemented by education practitioners (including teachers) for Māori students who are exhibiting mild-to-moderate learning and / or behavioural challenges in education settings.

Te Pikinga ki Runga is guided by three fundamental human rights principles that sit at the very heart of our bicultural society in Aotearoa New Zealand within the Treaty of Waitangi. Cultural dimensions within behaviour management regularly pose challenges for professionals especially within the fundamental function of assessment. Te Pikinga ki Runga provides a practical tool to assist behavioural practitioners to convert the theory, of being culturally responsive, into practice. The Te Huia grid, a key element of Te Pikinga ki Runga, steps practitioners through four domains (hohonga – relational aspects; hinengaro – psychological aspects; tinana – physical aspects; mana motuhake – self concept, cultural identity) to be considered in planning a behavioural response, with a set of reflective questions to inform assessment, analysis and planning.

3) *Te Hui Whakatika*

Te Hui Whakatika (118) has been delivered in primary and secondary schools in the Waikato, Bay of Plenty and Canterbury areas. It is based on the traditional hui, or meeting held within Māori cultural protocols which can provide a supportive and culturally grounded space for seeking and achieving resolution, and restoring harmony. Hui Whakatika provides a unique process for restoring harmony from within legitimate Māori spaces. Underpinned by traditional or pre-

European Māori concepts of discipline, Hui Whakatika provide a process that follows phases of engagement with the contemporary world while also adhering to four typical features of pre-European Māori discipline. These are:

- an emphasis upon reaching consensus through a process of collaborative decision-making
- a desired outcome of reconciliation and a settlement that is acceptable to all parties
- not to apportion blame but to examine the wider reason for the wrong
- less concern with whether or not there had been a breach of law and more concern with the restoration of harmony.

Te Hui Whakatika involves four distinct phases, preparing the groundwork, the hui proper, forming a plan and then follow-up and review at an agreed date. The hui phase includes key cultural processes that give mana and meaning to the event for participants.

4) *He Tāonga te Mokopuna*

He Tāonga te Mokopuna was developed by Māori early childhood professionals at the Auckland Early Childhood Development Unit and specialises in assisting children who have been affected by family violence. He Tāonga te Mokopuna also collaborates with the Atawhaingia Te Pā Harakeke (provider-focused) programme described above.

The programme has ten sessions of one to two hours, and can be delivered to an individual child or group of siblings in their home (eg when referred by the Family Court in response to a Protection Order given to a caregiver) or in small groups (eg Child, Youth and Family-funded provision is in groups of up to six children). It aims to help children: feel good about themselves; express feelings such as pain, hurt and fear; build safety nets; strengthen their relationship with their caregiver. The programme uses active child-centred activities and a scrapbook where material from the sessions is compiled. There is set goal for each session while facilitators also bring their personal style and skills to each whānau context.

The facilitators are early childhood experts holding professional qualifications and an in-depth knowledge of tikanga and te reo Māori. They are culturally matched to families as much as staffing levels allow. Professional development and supervision is provided monthly by Early Childhood Development. An evaluation by Cargo, Cram, Dixon, Widdowson and Adair (120) for the Ministry of Justice found positive outcomes within the Family Court-focused scope of that review.

5) *Awhi Whānau*

This programme was developed by Mana Social Services (a Rotorua social service provider) and was initially funded by Te Puni Kokiri (2007-2008) and more recently by Child, Youth and Family. Awhi Whānau is an individual, needs-based programme for 9-13 year olds who need assistance to

strengthen and/or maintain educational achievement through intensive support offered within the context of their whānau. It includes whānau at all times and can include anger management, self esteem and responding to various forms of abuse, grief loss, relationship breakdowns and self harm tendencies. The programme is funded to work with 40 cases per year:

- referrals are primarily students who are on stand-down, threatened with exclusion from schools, exhibiting behaviour meaning they are not achieving in the school system or are refusing to go to school and often display antisocial behaviour
- referrals come predominantly from self-referred whānau and there is an open referral process
- parents or caregivers are also actively encouraged to take part in programmes/services offered by Mana social services e.g. counselling or violence management.

The outcomes sought are strengthened tamariki/whānau, child/family relationships and improved educational achievement through the maintenance of strong and healthy whānau.

4.6 *In search of a partnership approach*

4.6.1 Issues for understanding 'evidence'

The issue of cross-cultural implications for evidence and evaluation continues to be fraught with intrigue. While there is widespread agreement about the need for services that respond to conduct problems to be thoroughly evaluated (1), there have been ongoing tensions and debates about the types of evaluation that are best suited for services delivered to Māori (107). These tensions have been evident for both the evaluation of kaupapa Māori services and for generic services, which include Māori as clients. Debates over these issues have focused around the use of two research paradigms with differing assumptions and methodologies: western science and kaupapa Māori. As noted earlier, however, the development and dissemination of kaupapa Maori methodologies has been limited by the number of available trained Maori researchers.

There is a perception in the minds of many that kaupapa Māori programmes are not systematically (nor scientifically) grounded. Macfarlane et al (77) point out that indigenous people throughout the world have sustained their unique worldviews and associated knowledge systems for hundreds of years. This position is complemented by Kawagley and Barnhardt (123) who contend that many of the core values, beliefs and practices associated with these worldviews have survived and are being recognised as having an adaptive integrity that is as valid for today's generations as it was for generations past.

4.6.2 Māori research principles

Traditional Māori society, and other indigenous societies, value high-level thinking and analytical skills, exemplified in compellingly clear understandings of cosmology, geography and industry. For

Māori and other indigenous groups these skills might be exemplified in quite different ways. For example, Māori practices of producing resources made from flax required a precise knowledge of the physical properties of raw materials, their source, the details regarding tikanga (customary practices) surrounding the collection and processing, their sustainability and so on. A second example is the successive generations of purposeful voyaging across the oceans wherein, an intensive knowledge of navigation was carefully acquired. Such knowledge was not just happened upon. It was acquired through active participation within culturally specific and authentic learning contexts. As is the case with other indigenous groups, Māori did not instantly and instinctively know about the qualities, properties and habits of birds, plants and other natural resources. Hughes (124) maintains that indigenous groups had to work this out systematically and that their scientific endeavours were recorded and transmitted through song, symbol, story, dance and everyday practices (77).

There are a number of research methodologies that are distinctively Māori in their approach and assumption. These methodologies include:

- discursive practice and collective approaches where the research objectives and the research relationship are orientated to benefit "all the research participants and their collectively determined agenda" (7, p. 3)
- use of whakawhanaungatanga practices where the research group is established as a whānau (of interest) and where this whānau is the location for communication, sharing outcomes, constructing shared common understandings and meanings, making joint decisions, and where support and encouragement are sought from those who hold wise counsel in Maoridom (7).

It is also helpful to recognise that "Indigenous methodologies are often a mix of existing methodological approaches and indigenous practices" (125, p. 143).

In any research or policy development context, the terms 'effective' and 'evidence-based' should not be seen as being synonymous, nor should they be used interchangeably. The defining of what is meant by 'evidence' is problematic when one form of evidence is privileged above another (126). Resistance by Māori is not uncommon when their indigenous knowledge is seen to have a lesser value than western science research evidence. The converse applies – when Māori knowledge is valued, resistance is alleviated. It would appear therefore, that a case exists for a blended schema; one that respects and acknowledges how both forms of evidence (western and indigenous) can help define the causes of a child and whānau being unsettled (raruraru) and offer solutions to enable wellbeing (whānau ora) to be achieved. Effective clinical practice with Māori whānau occurs best where both knowledge bases are cherished and where there is a crossing of cultural

borders and the braiding of rivers. With this approach, the mana of the child, the inclusion of the whānau, and the integrity of the professional are all valued (127).

Section four of this report contends that traditional Māori knowledge has a real presence in programmes such as those outlined in table 2, and arguably has contributed to the instilling of attributes such as self-regulation and autonomy, respect for leaders and skills for group dynamics, in young Māori in contemporary times. It is reiterated here that indigenous knowledge, understanding and history (that are implicit in kaupapa Māori programmes through tapu, tikanga, taonga tuku iho, and tino rangatiratanga) for example, need to be accepted as highly valid programme components to deliver outcomes for Māori. Other facets of indigenous knowledge, for example the processes of whakawhanaungatanga, pūrākau, waiata and te reo, should be viewed as having veracity within Māoridom and therefore are not irrelevant to programme content and context. In other words, the cultural protocols that give authority to Māori identity cannot be separated from sub-components or principles underlying programmes designed for responding to conduct problems and seeking to develop wellbeing for tamariki and whānau.

The issues of Māori knowledge and scientific enquiry are discussed by Durie (128) in the context of the resurgence of traditional healing:

> *…conventional explanations may not only be inadequate to explain traditional knowledge, they might impose inappropriate frameworks which are incapable of encompassing the holistic nature of the understanding…Full understanding requires the capacity to learn from quite different systems of knowledge and to appreciate that each has its own validity of its own within its own cultural context. Science is one such system. Māori cultural knowledge is another…a challenge will be to accommodate more than one system of knowledge without necessarily attempting to validate one using the criteria of the other (p.11).*

Durie advocates for two knowledge bases with their own standing. In discussing Māori-centred research, Durie (129) also advocates for the utilisation of both generic scientific and Māori methodologies rather than discounting one methodology in favour of the other. He calls this interface research and suggests that we need to:

> *Harness the energy from two systems of understanding in order to create new knowledge that can be used to advance understanding in two worlds (p. 306).*

4.6.3 Blended research principles

While programmes involving Māori need to be developed and evaluated from a kaupapa Māori perspective, attention also needs to be given to the role of western science-based evaluations in assessing such programmes (107). There are multiple reasons for arguing that programmes which are funded by government must meet the standards of efficacy set by both western science and kaupapa Māori research. These reasons are:

- the Treaty principle of partnership (Article One of the Treaty of Waitangi) implies that all parties to public policy should be satisfied that public money is being spent wisely and for the benefit of all New Zealanders. This in turn implies the need for all publicly funded programmes to be critically evaluated from both western science and kaupapa Māori perspectives. Evaluations which favour one perspective over the other run the risk of creating divisive debates and a lack of consensus (or partnership) about programme efficacy
- the Treaty principle of protection (Article two) implies that we need to protect knowledge from both sides - both indigenous kaupapa Māori knowledge and western science knowledge. Protecting, valuing and expanding the evidence and knowledge from both perspectives will make programmes less vulnerable to changing political climates. Programmes most likely to survive political and funding changes are those that have strong protection by both western science and kaupapa Māori evidence perspectives
- the Treaty principle of participation (Article three) makes it clear that while generic and kaupapa Māori programmes may draw from different cultural and philosophical roots they both serve a common pool of stakeholders that includes all sectors of the New Zealand population including (a) the tax payers who fund the programmes, (b) the providers who deliver the programmes and (c) the clients who receive the programmes.

From all three Treaty principles, it can be argued that it is important that all programmes involving New Zealanders are evaluated from the perspectives of both Treaty partners.

While there has been a growing literature on the development of kaupapa Māori research, less consideration has been given to the ways in which western science and kaupapa Māori research can be combined to produce consensual decisions about programme effectiveness. Figure 3 sets out a conceptual model that attempts to integrate western science and kaupapa Māori models of programme development and evaluation. This diagram is based on the analogy of a braided river (*he awa whiria*) in which there are two main streams representing western science and kaupapa Māori models which are interconnected by minor tributaries with the two streams reaching a point of convergence.

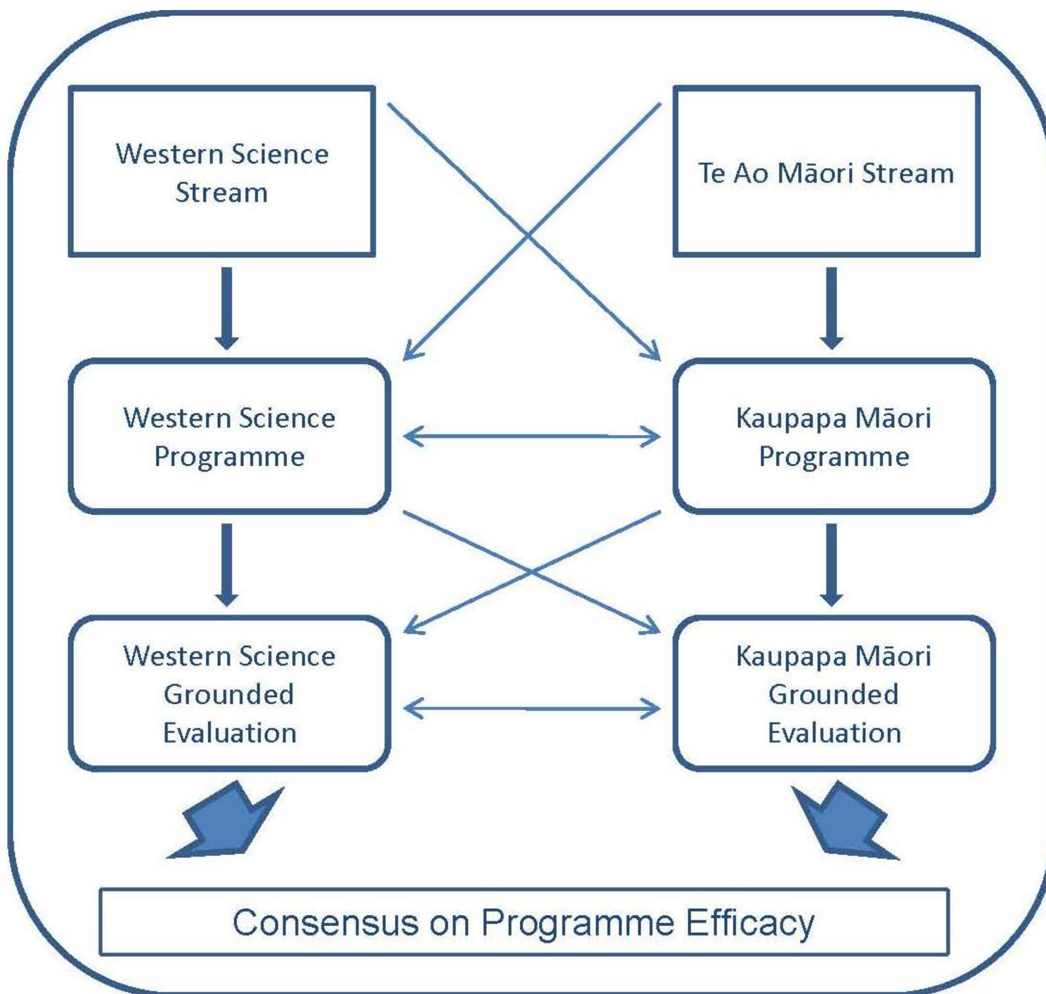

Figure 4: Parallel streams model of western science and kaupapa Māori programme development and evaluation

Some of the key features of this model are:

- The western science and kaupapa Māori streams are acknowledged as distinctive approaches to the development and evaluation of programmes.
- The model permits knowledge from the kaupapa Māori stream to inform the development of western science programmes and knowledge from western science programmes to inform the development of kaupapa Māori programmes.
- The model also permits the evaluation methodologies used in the western science stream to be applied by the kaupapa Māori stream and the evaluation methodologies used by kaupapa Māori research can be applied to the western stream.
- Finally the model assumes that the acceptance of programmes as being effective will rely on an acceptance of evidence from both streams.

4.6.4 Current research initiatives

The Ministries of Education, Health and Social Development currently have evaluation plans for kaupapa Māori programmes or for the cultural enhancement of western science-based programmes. These are:

- Positive Behaviour for Learning Action Plan initiative to evaluate two kaupapa Māori programmes within the education sector (Ministry of Education)
- projects to implement or evaluate enhancements of western science-based programmes for te ao Māori perspectives and local tikanga are:
  - Primary Care Triple P implementation and evaluation (Ministry of Health)
  - Incredible Years Basic Parenting Programme evaluation (Ministries of Social Development, Education and Health)
  - Positive Behaviour for Learning Action Plan (programme enhancement tool) (Ministry of Education).

These initiatives provide an opportunity for the te ao Māori stream of the braided rivers approach to gain a collective, collaborative momentum. One way to gather momentum and engage the interface of research and practice for the above initiatives would be holding wananga (workshop/discussion fora) to:

- cross-fertilise ideas, identify common tikanga and support one another's mahi
- begin to establish a common kete of tools and methodologies for evaluation of kaupapa Māori programmes
- draw on existing and developing frameworks in the wider sector (eg Hua Oranga and Whānau Ora indicators).

4.7 *Conclusion*

Times have changed. There appears to be increasing awareness that the dominant culture determines and provides the professional delivery, even though the minority culture increasingly provides the clients. A quiet revolution by Māori that challenges universality is beginning to occur. Over the last two decades Māori epistemologies and kaupapa Māori research methods have taken on an increasingly significant presence in the helping professions, and more recognition of culture has been accorded in the interventions and programmes that contribute to enhanced professional practice. We are entering an era when the key principles enshrined in the Treaty of Waitangi need expression across all government responses to conduct problems. The development of evidence bases must acknowledge both western science and Māori epistemological approaches.

The question is not whether we want culturally inclusive programmes or whether such programmes should be accommodated; for cultural inclusion is clearly our present and our future. Rather it is time to move beyond old questions and on to new ways of working that will show how diversity can be built into the centre of psychological frameworks, where it can serve to help build resources through practice and policy that will address inequities and foster understanding.

Years of being under-valued and having to swim against the current have been the antithesis to satisfactory progress. That is where the braided rivers approach that is being proposed in this project is to be applauded. This section of the report contends that there is a critical role for academic and community partnerships in the plethora of global, national and indigenous learning. Rivers might vary in shape, design, velocity, breadth and depth; but braided rivers have a single focus – they flow in a common direction, and sustain growth along the way.

Glossary

Aotearoa New Zealand

aroha kindness, affection, love, compassion

ata morning, shadow, reflection

awa river, channel, gully

āwhina help, assist

āwhinatanga to help or assist

awhinatia helping learners

hapū sub-tribe(s) that share a common ancestor

harakeke flax

hauora health

he a, an, some

Hikairo a Ngāti Rangiwewehi chief who negotiated a peaceful resolution to conflict

hinengaro mind

hoki also, because

hohounga reconcile

huakina mai opening doors

hui meeting

huia huia bird (Heteralocha acutirostris)

i runga i te manaaki caring that pervades

ihu being assertive

iwi tribal kin group; nation

kaiako teacher, tutor

iwi katoa societal context

kaitiaki guardian, minder; custodian over natural resources

katoa all, every, completely

kaumātua elder

kaupapa topic, basis, guiding principles

kete basket made of flax strips

kōhanga reo pre-school based on Māori language and culture

kōrero speak, talk, discuss, discussion

kōrero pūrākau legend, story, myth

korowai traditional cloak

kotahitanga unison, unity

kura school, red, precious

mahi work

Māhutonga Southern Cross (constellation of stars)

mai this direction, hither

mana prestige, status, authority, influence, integrity, honour, respect

mana ake unique identity of individuals and family

manaaki(tia) show respect or kindness, entertain, care for

manaakitanga respect, hospitality, kindness, mutual trust, respect and concern

Māoritanga the very essence of being Māori

māpuna spring of water, spring of life, resource

marae tribal meeting grounds, village common

mātauranga knowledge, tradition, epistemology

mātua parents

mau rākau arm

mauri life essence, life force, energy, life principle

mauri ora inner vitality

mauri toa personal courage

mokopuna grandchild

nga manukura leadership, chiefs in council

Ngāti Rangiwewehi tribe in the Rotorua region

Ngāti Whatua tribe within the Auckland region

orangatanga creating nurturing environments

Papatūānuku the name given to the Earth Mother

pikinga ascent, climbing on

poutama stepping stone

pōwhiri to welcome; welcome ceremony

puao dawn

pūmanawa ability

pūmanawatanga heart beat

puna mātauranga source of knowledge

pūrākau ancient legend, myth

rākau tree, weapon

rangatahi youth

rangatiratanga self determination, autonomy, sovereignty

Ranginui the name given to the Sky Father

raruraru unsettledness

reo language

rito centre shoot or heart of the flax

rua two

runga upwards, top, above

taha hinengaro psychological health

taha wairua spiritual health

taha tinana physical health

taha whānau family health

tahi one

taiaha close quarters combat weapon

taiao physical environment

taiohi young, youth, teenage

tamaiti child

tamariki children

tangata person(s), people

taonga precious, an heirloom to be passed down through the different generations of a family, protected natural resource

taonga tuku iho traditions, knowledge, treasures handed down by ancestors

tapa side

tapu sacrosanct, prohibited, protected, restricted

te ao Māori Māori worldview

te hohounga: mai i te tirohanga Māori the process of reconciliation: towards a Maori view

te reo the Māori language

te mana whakahaere autonomy

te oranga participation in society

tikanga customs, meanings, practices

tikanga o te marae customary practice on the marae

tinana body

tino rangatiratanga self-governing, having absolute independence and autonomy

tipuna ancestor

tirohanga view, outlook, perspective

toiora healthy lifestyle

tuakana - teina elder - younger sibling

tuarua second, twice

tuatahi first, initial, primary

tuatoru third

tūrangawaewae domicile, place where one has rights of residence and belonging through kinship and whakapapa

waiata sing, song, chant

waiora - the spiritual element that connects human wellness with external environments

wairua spirit, soul, attitude

wairuatanga recognition of the spiritual dimension

waka canoe, vehicle

wānanga houses of higher learning, tertiary institute, transmitting the knowledge of the culture from one generation to the next

wehenga separation

whā four, fourth

whakapapa genealogy, ancestry, familial relationships, unlike the Western concept of genealogy

whakatika straighten, rectify, amend, discipline

whakawhanaungatanga kinship, links, ties, facilitating a more open relationship, network of interactive links

whānau family, nuclear/extended family

whanaungatanga the interrelationship of Māori with their ancestors, their whānau, hapū, iwi as well as the natural resources within their tribal boundaries such as mountains, rivers, streams and forests, recognition of relationships iwi and waka.

whatumanawa open, healthy expression of emotion

whare house

whāriki mat, carpet

wheke octopus

whiria plait, twist, braid

Part 5: Concluding Comments and Recommendations

5.1 *Introduction*

This is the third AGCP report on issues relating to the prevention, treatment and management of conduct problems during childhood and adolescence. The evolution of these reports has been marked by a number of important changes in both government policy and thinking with growing evidence of:

1) Recognition of the significance of conduct problems by a number of government policies including the Positive Behaviour for Learning Strategy and the Drivers of Crime strategy.
2) The availability of an ever increasing literature on effective evidence based programmes for the prevention, treatment and management of conduct problems.
3) Increasing New Zealand investment into well validated programmes including Parent and Family programmes; School Based programmes and Multi-modal programmes.
4) Growing recognition of the need for programmes developed in or introduced into Aotearoa/New Zealand to be subject to thorough evaluation from different cultural perspectives.

Despite the progress that has been made in this area a number of significant challenges remain. These include:

1) *Lack of uniform lines of referral, assessment and treatment*: There are clear differences in both the type of assessment and the extent of service provision for children coming to attention via the Education, Health and Child Youth and Family services. There is an urgent need to develop uniform methods of assessment and intervention that can be applied across sectors.
2) *Lack of Qualified Staff*: The types of programme that have been identified as being effective in this report require the availability of trained staff. In particular there is a clear need for increased numbers of: a) psychologists and psychiatrists who are capable of leading and supervising evidence based interventions; b) well trained and supervised therapists and practitioners who are able to deliver programmes to families, teachers and schools; c) well trained teachers and social workers who have a background in the identification, treatment and management of childhood conduct problems.
3) *Research Infrastructure*: Finally there is a need for increased investment into research and evaluation infrastructure to ensure that programmes can be evaluated from both scientific and Kaupapa Maori perspectives.

The recommendations we make below are designed to:

1) Build on existing policy and other resources to develop effective programmes for 8-12 year olds.

2) To address areas where further development is needed to ensure long term policy success.

5.2 *Recommendations from Part 2*

2.1) *Recommended/Promising Programmes*: It is recommended that the portfolio of programmes set out in Table 1 is accepted as a blue print for the planning of generic New Zealand services for the prevention, treatment and management of conduct problems in 8-12 years olds.

2.2) *New Programme Investments:* It is recommended that no new investments are made into conduct problem programmes that are not listed in Table 1 unless there is strong and compelling evidence for the efficacy of these programmes. It should be noted that this recommendation is not intended, and should not be used, to preclude the development of the te ao Maori programmes discussed in Part 4 of the report.

5.3 *Recommendations from Part 3*

3.1) *School Wide Positive Behaviour Support*: Investment needs to be made into developing and implementing an evaluation of the efficacy of the New Zealand implementation of the School Wide Positive Behaviour Support programme as applied to 8-12 year olds. This evaluation could include: a) Single subject studies using the school as a unit of observation; b) comparisons of school functioning before and after programme implementation; c) cluster randomised trials using a wait list design.

3.2) *Incredible Years Basic (9-12) programme*: Investment needs to be made into implementing and evaluating the Incredible Years Basic (9-12) programme. The implementation and evaluation of this programme should be based around the methods employed to develop and evaluate the Incredible Years Preschool Programme.

3.3) *Teacher Education:* Investment is required in developing and implementing a manualised teacher education and training programme targeting the core principles and practices of behaviour management. This should be a compulsory part of all initial teacher education programmes requiring demonstrated proficiency by graduates before graduation.

3.4) *Teacher Professional Development*: Investment is required to develop and implement a manualised professional development programme for practising teachers targeting the core principles and practices of behaviour management. While we are not recommending that this be compulsory for all teachers it must be required of those who cannot demonstrate proficiency in behaviour management as part of the renewal of Practising Certificates.

3.5) *Advanced Teacher Behaviour Management Programme*: Investment is also needed to develop an advanced teacher behaviour management programme targeted at Resource Teachers of Learning and Behaviour and related staff. The purpose of this training would

be to develop a cadre of teacher advisors who have advanced training in behaviour management and who are able to provide classroom teachers with support and mentorship in the management of conduct problems.

3.6) *Primary Care Triple P*: Investment needs to be made in implementing and evaluating the Primary Care Triple P programme. Evaluation of the programme could include: a) Single subject studies of families as they progress through the programme; b) Comparisons of parenting behaviours before and after entry into Primary Care Triple P; c) Wait list randomised trials comparing the parenting behaviours of those receiving Primary Care Triple P with randomly selected wait list controls.

3.7) *Integration of CAMHS and SE*: Consideration should be given to further integrating and aligning the services provided by SE and CAMHS. A good start has been made in delivering an enhanced interagency response to conduct problems in both Mid Central and Bay of Plenty but work is required in other regions. These sites could be used to provide a blue print for improving inter-sectoral collaboration between these services. An important requirement for the selection of future sites is existing strong linkages between CAMHS and SE.

3.8) *NGO Capacity*: Consideration should be given by the Ministries of Education, Health and Social Development to conducting a stock take of NGOs: a) delivering the evidence based services in Table 1; b) providing training in the services in Table 1.

3.9) *Triple P levels 4 and* 5: Further investment should be undertaken by the Ministries of Education and Health to include Triple P levels 4 and 5 as part of the portfolio of services offered to families of children with conduct problems. The implementation and evaluation of Triple P levels 4 and 5 should follow the processes used to implement and evaluate the Incredible Years Pre School basic programme.

3.10) *Development of Tier 3 programmes*: Further investment is needed to increase the availability of Tier 3 interventions including: PCIT; Triple P level 4 and 5; Incredible Years Basic and Advanced; Multi-Systemic Therapy; and Multidimensional Treatment Foster Care. Implementation of these programmes should be accompanied by appropriately designed evaluations.

3.11) *Uniform Screening, Assessment and Treatment*: The Ministries of Education, Health and Social Development should consider the formation of an interdepartmental working party charged with the tasks of designing, implementing and evaluating a uniform protocol for the identification, assessment, treatment and follow up of children coming to official attention for significant conduct problems.

3.12) *Treatment of Conduct Problems by CAMHS*: It is recommended that the Ministry of Health abolish the exclusion policy that CAMHS will not provide treatment services when the child's and family's support needs are solely oriented to conduct disorder.

3.13) *Developing Capacity within CAMHS*: The implementation of recommendation 3.12 will require investments in the retraining and up skilling of CAMHS staff to deliver the evidence based interventions recommended in this report.

3.14) *Training of Psychologists/Psychiatrists*: The Ministries of Education, Health and Social Development should consider developing forward projections of the likely number of trained psychologists or psychiatrists that will be needed to provide an effective service for the treatment and management of conduct problems. At the moment there are insufficient numbers of child psychiatrists and clinical psychologists being trained in New Zealand. There is a need to provide funding to increase the numbers being trained and there is also an opportunity to develop a specialist training programme for psychologists and social workers in the treatment and management of conduct problems in children.

3.15) *Training of Therapists*: The Ministries of Education, Health and Social Development should consider undertaking a review of current New Zealand capacity to train, supervise and support therapists to provide the Tier 1, 2 and 3 programmes listed in Table 1.

3.16) *Informing Social Workers:* The Ministry of Social Development and CYF should consider the possibility of setting up meetings to introduce Social Work staff to issues regarding the prevention, treatment and management of conduct problems. These meetings could be based on the model used by the Ministry of Education in the development of the Positive Behaviour for Learning Strategy.

3.17) *Developing Research Capacity*: Further investment by the Ministries of Education, Health and Social Development is required to develop and foster capacity to evaluate programmes using both Prevention Science and Kaupapa Māori methodologies.

5.4 *Recommendations from Part 4*

4.1) *Address equity.* Government agency policy advisors and decision-makers need to address equity issues when allocating funding and resources that respond to conduct problems in Aotearoa New Zealand, by:

- funding kaupapa Māori programmes at a level commensurate with the rates of risk for conduct problems in the Māori population
- funding robust evaluations of kaupapa Māori programmes so that an appropriate evidence base can be established
- ensuring that all western science-based programmes are culturally appropriate in content and culturally responsive in delivery
- including kaupapa Māori programmes in the range of services offered by Child and Adolescent Mental Health Services.

4.2) *Maintain an ecological perspective.* All programmes delivered to Māori should maintain a focus on support to whānau and wider contexts such as schools and communities rather than a child's conduct problem becoming the treatment focus. Effective programmes are not only concerned with high quality technical processes in the delivery of services. They also require a high level of responsiveness to contexts. This includes collaborative exchanges of information between participants in a process of reciprocal learning or ako. The Government's Whānau Ora project characterises this ecological approach and notes the importance of:

- whānau opportunity and integrity
- best whānau outcomes
- coherent service delivery
- competent and innovative provision.

4.3) *Work collaboratively across government and NGOs to strengthen te ao Māori responses to conduct problems and the supporting evidence base.* Use collaborative engagement such as wānanga to support current work being undertaken by the Ministries of Education, Health and Social Development regarding evaluation of kaupapa Māori programmes (Positive Behaviour For Learning) and enhancement of western science-based programmes (Incredible Years Basic and Triple P). This recommendation fits with recommendation 3.16.

4.4) *Lift the cultural and clinical capacity/capability of practitioners working with whānau and conduct problems.* This recommendation links to recommendations 3.8; 3.13; 3.14; 3.15.

- Increase the te ao Māori content and cultural competency content of training for all behavioural practitioners/therapists, including through working with Te Rau Matatini[V].
- Ensure qualifications in te ao Māori behavioural psychology and social work are offered and career options established.
- Ensure mainstream training of psychologists and Resource Teachers Learning and Behaviour includes comprehensive understanding of te ao Māori and responses to conduct problems.
- Enlarge the Māori research workforce by increasing the funding of and training for Māori researchers.

[V] Māori workforce development agency for enhancing whānau ora, mental health and wellbeing

He whakaaro whakamutunga - Epilogue

This poem was composed by Phil Dinham of the Ministry of Social Development to celebrate the development of the He Awa Whiria (Braided Rivers Model) proposed in section 4 of the report. It also builds on the motifs of flax, fern and raindrops that have recurred on the covers of AGCP reports.

The Flax Leaf and the Raindrop

A raindrop falls on the mountainside
He mea ngātahi, It is one
The mountain guides it to the stream
The stream tumbles down to the river
The river flows to the sea
As it flows it carves the land
As a toki cuts the tree
He mārohi, it is strong.

A raupō is stripped from the harakeke
He mea ngātahi, it is one
We braid the leaf into the rope
The rope binds the wood and the stone
To craft the axe that fells the tree
To carve a waka that cuts the waves
The rope holds secure and safe
He mārohi, it is strong.

We trace the river back to its source
We hand the rope to our generations to come
We borrow, we learn, we grow stronger
Surrounded by the spirits of our ancestors
We pass on knowledge as we pass through.

Aotearoa I am your raindrop
Aotearoa you are my river
Aotearoa we are your flax leaves
Aotearoa you are our rope
Together, braided,
He iwi mārohirohi, we are strong.

Phil Dinham
June 2010

References

1. Blissett W, Church J, Fergusson DM, Lambie I, Langley J, Liberty K, et al. Conduct Problems Best Practice Report 2009: Ministry of Social Development; 2009.

2. Blissett W, Church J, Fergusson D, Lambie I, Langley J, Liberty K, et al. Conduct Problems: Effective Programmes for 3-7 Year Olds. Wellington: Ministry of Social Development; 2009.

3. Olds DL, Sadler L, Kitzman H. Programs for parents of infants and toddlers: Recent evidence from randomized trials. *Journal of Child Psychology & Psychiatry*. 2007;**483**: 4355-391.

4. Mrazek PJ, Haggerty RJ. Reducing risks for mental disorders: Frontiers for preventive intervention research. Washington, DC: Committee on Prevention of Mental Disorders, Institute of Medicine; 1994.

5. Smith LT. Decolonizing methodologies: Research and indigenous peoples. London: Zed Books; 1999.

6. Marie D, Haig BD. The Maori renaissance and the politicization of science in New Zealand. In: Openshaw R, Rata E, editors. The politics of conformity in New Zealand. Auckland: Pearson; 2009. p. 110-29.

7. Bishop R, editor. Kaupapa Maori Research: An indigenous approach to creating knowledge. Hamilton: Maori & Psychology Research Unit; 1999.

8. Bishop R. Kaupapa Maori research: An indiginous approach to creating knowledge. In: Robertson N, editor. Maori and psychology: Research and practice. Hamilton: Maori and Psychology Research Unit, University of Waikato; 1999.

9. Dadds MR. Families and the origins of child behavior problems. *Fam Process*. 1987;**26**(3):341-57.

10. Frick PJ. Developmental pathways to conduct disorder. *Child Adolesc Psychiatr Clin N Am*. 2006;**15**(2):311-31, vii.

11. Hamilton SS, Armando J. Oppositional defiant disorder. *Am Fam Physician*. 2008;**78**(7):861-6.

12. Harden PW, Zoccolillo M. Disruptive behavior disorders. *Curr Opin Pediatr*. 1997;**9**(4):339-45.

13. Loeber R, Burke JD, Pardini DA. Development and etiology of disruptive and delinquent behavior. *Annu Rev Clin Psychol*. 2009;**5**:291-310.

14. Goldstein RB, Prescott CA, Kendler KS. Genetic and environemental factors in conduct problems and adult antisocial behavior among adult female twins. *J Nerv Ment Dis*. 2001;**189**(4):201-9.

15. Caspi A, McClay J, Moffitt TE, Mill J, Martin J, Craig IW, et al. Role of genotype in the cycle of violence in maltreated children. *Science*. 2002;**297**(5582):851-4.

16. Kim-Cohen J, Caspi A, Taylor A, Williams B, Newcombe R, Craig IW, et al. MAOA, maltreatment, and gene-environment interaction predicting children's mental health: new evidence and a meta-analysis. *Mol Psychiatry*. 2006;**11**(10):903-13.

17. Aneshensel CS, Sucoff CA. The neighborhood context of adolescent mental health. *J Health Soc Behav*. 1996;**37**(4):293-310.

18. Bassarath L. Conduct disorder: a biopsychosocial review. *Can J Psychiatry*. 2001;**46**(7):609-16.

19. Hill J. Biological, psychological and social processes in the conduct disorders. *Journal of Child Psychology & Psychiatry & Allied Disciplines*. 2002;**43**(1):133-64.

20. Loeber R, Green S, Keenan K, Lahey BB. Which boys will fare worse? Early predictors of the onset of conduct disorder in a six-year longitudinal study. *Journal of the American Academy of Child & Adolescent Psychiatry*. 1995;**34**(4):499-509.

21. Odgers CL, Moffitt TE, Broadbent JM, Dickson N, Hancox RJ, Harrington H, et al. Female and male antisocial trajectories: from childhood origins to adult outcomes. *Dev Psychopathol*. 2008;**20**(2):673-716.

22. Toupin J, Dery M, Pauze R, Mercier H, Fortin L. Cognitive and familial contributions to conduct disorder in children. *J Child Psychol Psychiatry*. 2000;**41**(3):333-44.

23. Burt SA, Krueger RF, McGue M, Iacono W. Parent-child conflict and the comorbidity among childhood externalizing disorders. *Arch Gen Psychiatry*. 2003;**60**(5):505-13.

24. Button TM, Scourfield J, Martin N, Purcell S, McGuffin P. Family dysfunction interacts with genes in the causation of antisocial symptoms. *Behav Genet*. 2005;**35**(2):115-20.

25. Collishaw S, Goodman R, Pickles A, Maughan B. Modelling the contribution of changes in family life to time trends in adolescent conduct problems. *Soc Sci Med*. 2007;**65**(12):2576-87.

26. Forehand R, Biggar H, Kotchick BA. Cumulative risk across family stressors: short- and long-term effects for adolescents. *J Abnorm Child Psychol*. 1998;**26**(2):119-28.

27. Ilomaki E, Viilo K, Hakko H, Marttunen M, Makikyro T, Rasanen P. Familial risks, conduct disorder and violence: A Finnish study of 278 adolescent boys and girls. *Eur Child Adolesc Psychiatry*. 2006;**15**(1):46-51.

28. Loeber R, Green SM, Lahey BB, Frick PJ, McBurnett K. Findings on disruptive behavior disorders from the first decade of the Developmental Trends Study. *Clinical Child & Family Psychology Review*. 2000;**3**(1):37-60.

29. Meyer JM, Rutter M, Silberg JL, Maes HH, Simonoff E, Shillady LL, et al. Familial aggregation for conduct disorder symptomatology: the role of genes, marital discord and family adaptability. *Psychol Med*. 2000;**30**(4):759-74.

30. Fergusson DM, Horwood LJ, Lynskey MT. The childhoods of multiple problem adolescents: A 15-year longitudinal study. *J Child Psychol Psychiatry*. 1994;**35**(6):1123-40.

31. Rutter M, Maughan B, Mortimore P, Outson J, Smith A. Fifteen thousand hours: Secondary schools and their effects on children. Cambridge, MA: Harvard University Press; 1979.

32. Hahn R, Fuqua-Whitley D, Wethington H, Lowy J, Crosby A, Fullilove M, et al. Effectiveness of universal school-based programs to prevent violent and aggressive behavior: A systematic review. *Am J Prev Med*. 2007;**33**(2,Suppl):S114-S29.

33. Hahn R, Fuqua-Whitley D, Wethington H, Lowy J, Crosby A, Fullilove M, et al. Effectiveness of universal school-based programs to prevent violent and aggressive behavior. Washington DC: Center for Disease Control; 2007.

34. Wilson SJ, Lipsey MW. The effectiveness of school-based violence prevention programs for reducting disruptive and aggressive behavior. Washington, DC: United States Department of Justice; 2005.

35. Dodge KA, Pettit GS. A biopsychosocial model of the development of chronic conduct problems in adolescence. *Developmental Psychology*. 2003;**39**(2):349-71.

36. Fergusson DM, Lynskey MT, Horwood LJ. Factors associated with continuity and changes in disruptive behavior patterns between childhood and adolescence. *Journal of Abnormal Child Psychology*. 1996;**24**(5):533-53.

37. Quinton D, Pickles A, Maughan B, Rutter M. Partners, peers and pathways: Assortative pairing and continuities in conduct disorder. *Development and Psychopathology*. 1993;**5**:763-83.

38. Valois RF, MacDonald JM, Bretous L, Fischer MA, Drane J. Risk factors and behaviors associated with adolescent violence and aggression. *American Journal of Health Behavior*. 2002;**26**(6):454-64.

39. Moffitt TE. Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review*. 1993;**100**:674-701.

40. Moffitt TE, Caspi A, Harrington H, Milne BJ. Males on the life-course-persistent and adolescence-limited antisocial pathways: Follow-up at age 26 years. *Development and Psychopathology*. 2002;**14**:179-207.

41. Church J. The definition, diagnosis and treatment of children and youth with severe behaviour difficulties: A review of research. Wellington: Ministry of Education; 2003.

42. Granic I, Patterson GR. Toward a comprehensive model of antisocial development: a dynamic systems approach. *Psychol Rev*. 2006;**113**(1):101-31.

43. Dishion TJ, French DC, Patterson GR. The development and ecology of antisocial behavior. In: Cicchetti D, Cohen DJ, editors. Developmental Psychopathology, Vol 2: Risk, Disorder, and Adaptation. New York: John Wiley & Sons Inc; 1995. p. 421-71.

44. Patterson GR. Etiology and treatment of child and adolescent antisocial behavior. *The Behavior Analyst Today*. 2002;**3**:133-44.

45. Van Acker R, Grant SH, Henry D. Teacher and student behavior as a function of risk for aggression. *Education and Treatment of Children*. 1996;**19**:316-34.

46. Walker HM, Buckley NK. Teacher attention to appropriate and inappropriate classroom behavior: An individual case study. *Focus on Exceptional Children*. 1973;**5**:5-11.

47. Center DB, Deitz SM, Kaufman ME. Student ability, task difficulty, and inappropriate classroom behavior: A study of children with behavior disorders. *Behavior Modification*. 1982;**6**:355-74.

48. Capaldi DM. Co-occurrence of conduct problems and depressive symptoms in early adolescent boys II. A two-year follow-up at grade 8. *Development and Psychopathology*. 1992;**4**:125-44.

49. Scott S. An update on interventions for conduct disorder. *Adv Psychiatr Treat*. 2008;**14**:61-70.

50. Alexander JF, Pugh C, Parsons BV, Sexton T, Barton C, Bonomo J, et al. Functional family therapy. In: Elliot DS, editor. Blueprints for violence prevention. Boulder, CO: Center for the Study and Prevention of Violence; 2000.

51. Powell NR, Lochman JE, Boxmeyer CL. The prevention of conduct problems. *Int Rev Psychiatry*. 2007;**19**(6):597-605.

52. Connor DF, Carlson GA, Chang KD, Daniolos PT, Ferziger R, Findling RL, et al. Juvenile maladaptive aggression: a review of prevention, treatment, and service configuration and a proposed research agenda. *J Clin Psychiatry*. 2006;**67**(5):808-20.

53. McMahon RJ, Wells KC, Kotler JS. Conduct problems. In: Mash EJ, Barkley RA, editors. Treatment of childhood disorders. New York: Guilford Press; 2006. p. 137-268.

54. Walker HM, Hops H, Greenwood CR. RECESS: Research and development of a behavior management package for remediating social aggression in the school setting. In: Strain PS, editor. The utilization of classroom peers as behavior change agents. New York: Plenum Press; 1981. p. 261-303.

55. Tolan P, Henry D, Schoeny M, Bass A. Mentoring interventions to affect juvenile delinquency and associated problems. *Campbell Systematic Reviews*. 2008;**16**.

56. Wilson SJ, Lipsey MW. Wilderness challenge programs for delinquent youth: a meta-analysis of outcome evaluations. *Eval Program Plann*. 2000;**23**:1-12.

57. American Psychological Association. Zero Tolerance Task Force report. Washington DC: American Psychological Association; 2008.

58. Cox SM, Davidson WS, Bynum TS. A meta-analytic assessment of delinquency-related outcomes of alternative education programs. *Crime & Delinquency*. 1995;**2**:219-34.

59. Wilson SJ, Lipsey MW. School-based interventions for aggressive and disruptive behavior: update of a meta-analysis. *Am J Prev Med*. 2007;**33**(2 Suppl):S130-43.

60. Justice Policy Institute. Schools and suspensions: Self-reported crime and the growing use of suspensions. Washington DC: Justice Policy Institute; 2001.

61. Ministry of Education. Positive behaviour for learning action plan. Wellington: Ministry of Education; 2010.

62. Drivers of Crime Ministerial Meeting. Drivers of Crime. Wellington: New Zealand Government; 2009.

63. Fergusson DM, Stanley L, Horwood LJ. Preliminary Data on the Efficacy of the Incredible Years Basic Parent Programme in New Zealand. *Australian and New Zealand Journal of Psychiatry*. 2009;**43**:76-9.

64. Lambie I, Stewart MW. Workforce factors for psychologists in CAMHS in New Zealand. *Child and Adolescent Mental Health*. 2010;**15**(3):164-70.

65. Webster-Stratton C, Taylor T. Nipping early risk factors in the bud: Preventing substance abuse, delinquency, and violence in adolescence through interventions targeted at young children (0 to 8 Years). *Prevention Science*. 2001;**2**(3):165-92.

66. Webster-Stratton C. Preventing conduct problems in head start children: Strengthening parenting competencies. *Journal of Consulting & Clinical Psychology*. 1998;**66**(5):715-30.

67. Domitrovich CE, Greenberg MT. The study of implementation: Current findings from effective programs that prevent mental disorders in school-aged children. *J Educ Psychol Consult*. 2000;**11**(2):193 - 221.

68. Mihalic S, Fagan A, Irwin K, Ballard D, Elliot D. Blueprints for violence prevention replications: Factors for implementation success. Boulder, CO: Institute of Behavioral Science, University of Colorado; 2002.

69. Fixsen DL, Naoom SF, Blase KA, Friedman RM, Wallace F. Implementation research: A synthesis of the literature. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute; 2005.

70. Davis N, Fletcher J, Groundwater-Smith S, Macfarlane A. The Puzzles of Practice: Initiating a collaborative action and research culture within and beyond New Zealand. NZARE Conference & Annual Meeting; 2009 30 Nov-4 Dec 2009; Rotorua; 2009.

71. Cherrington L. Te hohounga: Mai i te tirohanga Māori: The delivery of conduct problem services to Māori. Unpublished Report. Wellington: Ministry of Social Development; 2009.

72. Durie MH. Te Pae Māhutonga: a model for Māori health promotion. Health Promotion Forum of New Zealand Newsletter. 1999 2-5 December 1999.

73. Ministry of Education. Te Whāriki: Early Childhood Curriculum. Wellington: Learning Media; 1996.

74. Reedy T. Barriers and Constraints that Affect Māori Educational Outcomes. Wellington: Reedy Holdings; 1992.

75. Ministry of Health. Maori Health Models. 2010 [cited 9 November 2010]; Available from: http://www.maorihealth.govt.nz/moh.nsf/pagesma/447

76. Grace W. He Māpuna te Tamaiti: Māori Ecologies to Support the Child. Paper presented to the Commentary Group on the NZCF Key Competencies. Wellington: Ministry of Education; 2005.

77. Macfarlane AH, Glynn T, Grace W, Penetito W, Bateman S. Indigenous epistemology in a national curriculum framework? *Ethnicities*. 2008;**8**(1):102-27.

78. Phinney J, Rotheram M. Children's ethnic socialzation: Pluralism and development. Newbury Park, Ca: Sage; 1987.

79. Barrington J. Separate But Equal? Māori Schools and the Crown, 1867- 1969. Wellington: Victoria University Press; 2008.

80. Merry SN, Wouldes T, Elder H, Guy D, Faleafa M, T. C. Kua whakawhenua te purapura ka puawai te taonga. Addressing the social and emotional needs of infants in Counties Manukau District Health Board. Auckland: Counties Manukau District Health Board; 2008.

81. Elder H. He Reo o nga Mokopuna. "Inspiring Communities". Child Advocates Conference. Wellington; 2009.

82. Milne M. Māori perspectives on Kaupapa Māori and Psychology: A discussion document. Wellington: New Zealand Psychologists Board; 2005.

83. Fergusson DM, Poulton R, Horwood LJ, Milne B, Swain-Campbell N. Comorbidity and Coincidence in the Christchurch and Dunedin Longitudinal Studies. Report prepared for the New Zealand Ministry of Social Development, and Ministry of Education and the Treasury. New Zealand; 2004 October 2004.

84. Child Youth and Family. Working with children and young people with mental health problems, and their families and whanau Wellington: Department of Child, Youth, and Family Services; 2002.

85. SPEaR. Best Practice Guidelines 2008: Research and evaluation with Māori. 2008.

86. Bishop R, Berryman M, Richardson C, Tiakiwai S. Te Kōtahitanga: The Experiences of Year 9 and Year 10 Māori Students in Mainstream Classrooms. Research report to the Ministry of Education. Hamilton: University of Waikato; 2002.

87. Glynn T, Berryman M, Bidois P, Atvars K. Bilingual Behaviour Checklists: Initiating a Student, Teacher and Parent Partnership in Behaviour Management. *Waikato Journal of Education*. 2001;**7**(177-201).

88. Macfarlane A. Kia hiwa rā: Listen to Culture - Māori Students' Plea to Educators. Wellington: New Zealand Council for Educational Research; 2004.

89. Ministry of Health. He Korowai Oranga: Maori Health Strategy. Wellington: Ministry of Health; 2002.

90. Ministry of Education. Te Hikoitanga Māori Cultural Responsivity Framework. Wellington: Ministry of Education; 2008.

91. Durie MH, Cooper R, Grennell D, Snively S, Tuaine N. Whānau ora: Report of the Taskforce on Whānau-centred Initiatives. Wellington: Ministry of Social Development; 2010.

92. Rokx H, Pitman M, Joe M. *Atawhaingia Te Harakeke - A Māori Model of Parenting Support and Development*. Wellington: Early Childhood Development Unit; 1998.

93. Huriwai T, Robertson PJ, Armstrong D, Kingi T-P, Huata P. Whanaungatanga - A process in the treatment of Maori with alcohol-and-drug-use related problems. *Substance Use & Misuse*. 2001;**36**(8):1033-51.

94. Dumas J, Rollock D, Prinz R, Hops H, Blechman. Cultural sensitivity: Problems and solutions in applied and preventive intervention. *Applied & Preventive Psychology*. 1999;**8**:175-96.

95. Bridge TJ, Massie EG, Mills CS. Prioritizing cultural competence in the implementation of an evidence-based practice model. *Children and Youth Services Review*. 2008;**30**(10):1111-8.

96. Durie MH. Marae and implications for modern Māori psychology. *Journal of the Polynesian Society*. 1999;**108**(4):351-66.

97. Macfarlane A. Discipline, democracy and diversity: Working with students with behaviour problems. Wellington: NZCER Press; 2007.

98. Evans IM, Fitzgerald J, Harvey ST, Herbert AH. Cultural competencies for complex systems (family, school, and community): Perspectives on training clinical child psychologists in Aotearoa

New Zealand. In: Anton B, editor. International perspectives on professional training for clinical child and adolescent psychologists. Berlin; 2008.

99. Webster-Stratton C. Affirming diversity: multi-cultural collaboration to deliver the Incredible years parent programs; 2007.

100. Dionne R. Evidence-Based Programs in American Indian Communities. Washington, DC: Federal Interagency Work Group on Child Abuse and Neglect; 2008.

101. Gifford H, Pirikahu G. Engaging Māori whānau: Evaluation of a targeted parenting programme. Wellington: Families Commission; 2008.

102. Herewini T, I. A. Incredible Years Marae Based Group; 2009.

103. Cargo T. Māori experiences of delivering the Incredible Years Parenting Programme (Reflections). 2008.

104. Berryman M, Woller P, Glynn T. The Incredible Years: Learning from the Experiences of Māori Whānau and Māori Staff in Special Education: Evaluation report prepared for Ministry of Education, Special Education. Tauranga: Poutama Pounamu; 2009.

105. Durie MH. Whaiora: Māori Health Development. Auckland: Oxford University Press; 1994.

106. Dionne R. Walking the Good Path: Keeping American Indian Children Safe From Drugs and Alcohol. 2007.

107. Macfarlane AH. Kia hiwa rā! Listen to culture: A counter narrative to standard assessment practices in psychology. The Bulletin. 2008:30-6.

108. Te Rau Matatini. *Whiria Te Oranga: Kaumātua Workforce Strategy for Mental Health and Addiction Services*. Palmerston North; 2008.

109. Mead HM, Grove N. Nga Pepeha a nga Tipuna: The Sayings of the Ancestors. Wellington: Victoria University Press; 2003.

110. Rogoff B. The cultural nature of human development. New York: Oxford University Press; 2003.

111. Murrow K, Kalafatelis E, Fryer M, Ryan N, A. D, Hammond K, et al. An Evaluation of Three Programmes in the Innovations Funding Pool Tū Tangata, Report to the Ministry of Education. Wellington: Ministry of Education; 2004.

112. Glynn T, Berryman M, Bidois P, Atvars K, Duffull T, Horne J. Involving Children in research: the Hei Awhina Matua Project. *Childrenz Issues*. 1997;**1**(1):17-22.

113. Herbert AML. Whānau whakapakari: A Māori-centred approach to child rearing and parent-training programmes. Hamilton: University of Waikato; 2001.

114. Moewaka Barnes H, Barrett-Ohia O. Tu Tangata Evaluation: A report examining the use of quantifiable impacts. Auckland: Alcohol & Public Health Research Unit; 2001.

115. Workman K. *Mau Rākau, An Effective Kaupapa Māori Programme for Reducing Offending by Māori*. Lower Hutt: Workman and Associates Ltd; 1997.

116. Pitama S, Robertson P, Cram F, Gillies M, Huria T, Dallas-Katoa W. Meihana model: A clinical assessment framework. *New Zealand Journal of Psychology*. 2007;**36**(3):118-25.

117. Macfarlane S. Te Pikinga ki. Runga: Raising Possibilities. *Set: Research Information for Teachers*. 2009(2):42-50.

118. Hooper S, Winslade J, Drewery W, Monk G, Macfarlane A. School and family group conferences: Te Hui Whakatika (a time for making amends). 1999.

119. Berryman M, Bateman S. Claiming space and restoring harmony within Hui whakatika. Claiming Spaces: Proceedings of the 2007 National Māori and Pacific Psychologies Symposium; 2008 23-24 November 2007; Hamilton: Māori and Psychology Research Unit; 2008.

120. Cargo T, Cram F, Dixon R, D. W, Adair V. Evaluation of Programmes for Children under the Domestic Violence Act 1995. Wellington: Ministry of Justice; 2002.

121. Haar J. Evaluation Report on Mana Social Services Trust (Rotorua). Rotorua: Te Puni Kokiri, Investment in Effective Interventions project; 2008.

122. Durie MH. A Māori perspective of health. *Social Science and Medicine*. 1985;**20**(5):483-6.

123. Kawagley A, Barnhardt R. Education Indigenous Place: Western Science Meets Native Reality. Fairbanks: University of Alaska; 1997.

124. Hughes P. Interfacing Global and Indigenous Knowledge in the Curriculum. UNESCO-ACEID International Conference. Bankok; 2000.

125. Smith LT. Decolonising methodologies: Research and indigenous peoples. London: Zed Books; 1999.

126. Hammersley M. Some Questions about Evidence-Based Practice in Education. University of Leeds Annual Conference of the British Educational Research Association. Leeds; 2001.

127. Macfarlane A, Blampied N, Macfarlane S. Blending the clinical and the cultural: A framework for conducting formal psychological assessment in bicultural settings. *New Zealand Journal of Psychology*. in press.

128. Durie M. Identity, Nationhood and Implications for Practice in New Zealand. *New Zealand Journal of Psychology*. 1997;**26**(2).

129. Durie MH. Whānau as an intervention strategy for conduct problems. Severe Conduct Disorder Conference. Wellington; 2005.

APPENDIX 1

Research on Effective Interventions for 8- to 12-Year Old Children with Persistent Conduct Problems

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Introduction

This appendix contains reviews of interventions designed to reduce conduct problems in 8- to 12-year old children. Part 1 reviews the research on training programmes designed for the parents and caregivers of 8- to 12-year old children with persistent conduct problems. Part 2 reviews the research on training programmes designed for implementation by teachers in school settings. Part 3 reviews the educational and therapeutic programmes which have been developed for the children themselves and Part 4 reviews the research on multimodal interventions for 8- to 12-year old children with persistent conduct problems.

Within each part, each intervention is classified either as a Tier 1, Tier 2 or Tier 3 intervention. Tier 1 interventions are those which have been designed with the aim of reducing the prevalence of conduct problems in a defined population or subpopulation. Tier 2 interventions are those which have been designed to reduce conduct problems in individual children with clinically significant levels of conduct problems. Tier 3 interventions are more intensive interventions which can be used in the case of children whose behaviour has failed to improve as a result of a Tier 2 intervention. This classification differs from the Response to Intervention classification of preventive interventions as Primary/Universal, Secondary/Selected and Tertiary/Indicated (e.g. Domitrovich & Greenberg, 2000). It differs in that it groups universal and selected interventions together as Tier 1 interventions and divides the indicated (tertiary) interventions into two categories Tier 2 and Tier 3 according to their intensity.

The reviews contained in this Appendix are limited to reviews of interventions for which there is some evidence of efficacy and/or effectiveness. Evidence of effectiveness may take either of two forms.

(a) Following the APA Clinical Child Psychology guideline (Lonigan, Elbert & Johnson, 1998), we have classified as evidence-based any manualised intervention which has been shown to have a positive and reproducible effect in reducing conduct problems in 8- to 12-year old children in at least two well controlled randomised groups evaluations.

(b) Following the What Works Clearinghouse guideline (Kratochwill et al., 2010) we have also classified as evidence-based any manualised or widely used intervention which has been shown to have a positive and reproducible effect in reducing conduct problems in at least five well controlled single case experiments (undertaken by at least three different research teams) involving at least 20 children with conduct problems.

References

Domitrovich & Greenberg, 2000). The study of implementation: Current findings from effective programs that prevent mental disorders in school-aged children. *Journal of Educational and Psychological Consultation, 11,* 193-221.

Kratochwill, T. R., Hitchcock, J., Horner, R. H., Levin, J. R., Odom, S. L., Rindskopf, D. M., & Shadish, W. R. (2010). Single-case technical documentation. Retrieved from http://ies.ed.gov/ncee/wwc/pdif/wwc_scd.pdf.

Lonigan, C. J., Elbert, J. C., & Johnson, S. B. (1998). Empirically supported psychosocial interventions for children: An overview. *Journal of Clinical Child Psychology, 27,* 138-145.

Part 1
Parent Management Training for the Parents of Children Aged 8 to 12 Years with Persistent Conduct Problems

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One type of effective intervention for children with serious and persistent conduct problems is the delivery of assistance (variously referred to as behavioural parent training, parenting training, or parent management training) to the parents of children with conduct problems. The aim of Part 1 of this review is to identify parent management training interventions which have been shown to be effective in reducing antisocial behaviour in 8- to 12-year old children with persistent conduct problems, and which have been sufficiently well evaluated to qualify as evidence-based.

Parent management training programmes for the parents of middle school children with persistent conduct problems have been reviewed by a number of authors (e.g. Brestan & Eyberg, 1998; Church, 2003; Eyberg, Nelson, & Boggs, 2008; Fonagy, Target, Cottrell, Phillips & Kurtz, 2002; Kazdin, 1998; McMahon, Wells & Kotler, 2006**).** More recently several meta-analyses of this research have been published (e.g. McCabe, Sutcliffe & Kaltenthaler, 2005; McCart, Priester, Davies & Azen, 2006). These reviews identify three effective parent management training programmes: Triple P, Parent Management Training/Oregon, and Incredible Years. All three of these programmes were also reviewed in our second report (Blisset, Church, Fergusson, Lambie, Langley, Liberty, et al., 2009) which focused on effective treatments for 3- to 7-year old children with conduct problems.

1.1 Triple P Positive Parenting Programmes

Triple P is a five-level suite of parenting programmes developed by Sanders and associates at the University of Brisbane, Australia. The Triple P suite of programmes is the most extensively evaluated of all of the parent management training programmes. In fact, the research on Triple P is so extensive that it has been the subject of two independent meta-analyses (de Graaf, Speetjens, Smit, de Wolff & Tavecchio, 2008a, 2008b; Nowak & Heinrichs, 2008)

Triple P Positive Parenting Programme Level 1

Description. The first level, *Level 1 Triple P,* is a universal programme which takes the form of a media campaign designed to provide parents with access to useful information about parenting. The Triple P Level 1 media campaign has several aims: (a) to promote the use of positive parenting practices in the community, (b) to demonstrate specific child management and teaching strategies which all parents can use, (c) to increase population awareness of parenting resources in the local community and (d) to increase the likelihood that struggling parents will participate in parenting education programs by destigmatising the process of seeking help for children with behaviour problems (Sanders, Markie-Dadds & Turner, 2003).

The Triple P Level 1 media kit described in Sanders et al. (2003) includes a 30 second TV commercial, a 30 second radio commercial, a series of 40 60-second audio sound capsules on positive parenting, 52 newspaper columns dealing with common parenting issues and topics of general interest to parents, parenting tip sheets and videos for interested parents, sample press releases and a programme coordinator's guide.

Effectiveness. Inclusion of Triple P Level 1 in this review rests of the results of two RCTS, one undertaken in Australia and one in the UK. The Australian evaluation (Sanders, Montgomery, & Brechman-Toussaint, 2000) involved 56 parents of children aged 2 to 8 years, half of whom

watched a 12 episode TV series "Families" which had previously screened in New Zealand while the remainder joined a randomly selected waitlist control group. The 12 episodes were supplied in the form of 12 videotapes. Each 30 minute programme consisted of six segments, one of which was a 5-7 minute Triple P segment on how to handle or prevent a common child behaviour problem. Each tape was accompanied by a 1-2 page tip sheet summarising the material in the Triple-P segment. Prior to watching the TV programme 42.9% of parents rated their child in the clinical range on the Eyberg Child Behavior Inventory. After viewing the TV programme, this percentage fell to 14.3% and, at a 6-month follow up, it had fallen to 9.5% . Parents in the TV condition also reported significantly higher levels of perceived parenting competence on the Arnold Parenting Scale.

The UK evaluation (Sanders, Calam, Durand, Liversidge & Carmont, 2008; Calam, Sanders, Miller, Sadhnani, & Carmont, 2008) was rather different. The TV programme took the form of a six episode reality series *"Driving Mum and Dad Mad"*. The series followed five families with young children while they completed an 8-week Level 4 Triple P parenting programme. Parents of children (aged 2 to 9 years) were recruited prior to each of several screenings of the TV programme on ITV and randomly allocated to one of two treatments: a Standard Condition where they watched the programme and received tip sheets, or an Enhanced Condition in which they received the Level 4 Triple P Self-Help Workbook containing specific guidance and activities set out in a 10 week diary. They also received a weekly email reminder to watch the programme. Parents in the Enhanced Group had access to a website with tip sheets, additional video clips and access to an email helpline run by an accredited Triple P provider. One of the interesting outcomes of this study is that, while the children in the Enhanced Group made greater parent-reported gains on the Eyberg Child Behavior Inventory, at follow-up 40% of the children in the Standard Group had moved out of the clinical range on the ECBI as well.

Triple P-Positive Parenting Programme Level 2 and Level 3

Description. Level 2 Triple P and Level 3 Triple P are interventions which have been designed as selected interventions, that is, as somewhat more intensive Tier 1 (universal) interventions. *Level 2 Selected Triple P* is a brief primary health care intervention, designed to be delivered by nurses or social workers. It consists of one or two seminars, parenting tip sheets, and video demonstrations of specific parenting strategies for parents on common parenting issues. Two versions exist: one for the parents of primary school children and one for the parents of teenagers. *Level 3 Primary Care 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 relatively mild behaviour problems which do not yet meet diagnostic criteria for conduct disorder or antisocial development.

Effectiveness. There appear to have been two evaluations of Level 3 Triple P. The first (Turner & Sanders, 2006) was an Australian evaluation involving the mothers of 30 preschoolers. This study falls outside the scope of this review of interventions for 8- to 12-year olds. The second was a Dutch evaluation involving 129 parents of children aged 1 to 12 years who were randomly assigned to (a) a Triple P Level 3 programme and (b) normal Dutch primary care parent consultations (de Graaf, Onrust, Haverman & Janssens, 2009). The results of this study suggest that a significantly greater level of improvement in parenting skills was reported by the Triple P parents but that both treatments produced similar levels of improvement in child problem behaviours as reported by parents on the Strengths and Difficulties Questionnaire.

Triple P-Positive Parenting Programme Level 4

Level 4 Triple P has been designed as a Tier 2 intervention (that is, as an indicated intervention for the parents of children with conduct problems). Level 4 Triple P can be delivered to groups of parents (the *Group* programme), it can be delivered to families individually (the *Standard* programme), and it can be delivered as a distance programme *(Self-Directed Triple P).* Reviews of the effectiveness of these programmes have been provided by both the programme developers

(Sanders, 1999; Sanders, Markie-Dadds & Turner, 2003) and by independent reviewers (de Graaf, Speetjens, Smit, de Wolff & Tavecchio, 2008a, 2008b; Nowak & Heinrichs, 2008; Thomas & Zimmer-Gimbeck, 2007). The effectiveness of each version of Level 4 and Level 5 Triple P for the parents of 8- to 12-year old children with conduct problems will be reviewed in turn.

Level 4 Triple P: Standard Version

Description. The Standard version of Level 4 Triple P is a 10-session program in which parents are taught about the causes of children's behaviour problems, strategies for encouraging children's development and strategies for managing misbehaviour. These include monitoring, spending quality time, teaching new skills, how to encourage and reinforce desirable behaviour, and how to manage misbehaviour (using rules, clear instructions, planned ignoring, logical consequences, and time out). Video clips are used to demonstrate positive parenting skills. Home visits or clinic sessions enable parents to practise self-selected skills and enable the therapist to observe parent-child interaction and to provide feedback. Sessions last up to 90-minutes and home visits last 40–60 minutes.

Effectiveness. Most of the evaluations of Standard Level 4 Triple P have involved the parents of children aged 2- to 6-years. There appears to be one RCT involving a small sample of 14 parents of children aged 7-12 years (Nicholson & Sanders, 1999). In this RCT the Triple P parents produced significantly greater improvements than waitlisted control parents in self-reported changes in child behaviour on the Child Behaviour Checklist and the Parent Daily Report.

Level 4 Triple P: Group Version

Description. Group Triple P is an 8-session version of the Standard programme conducted with groups of 10 to 12 parents. It includes four 2-hour group sessions, which provide opportunities for parents to learn through observation, discussion, practice and feedback. 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.

Resources. Information about Triple P programmes is provided on the Triple P website at http://www10.triplep.net/?pid=59. Triple P resources include practitioner manuals (e.g., Turner, Markie-Dadds & Sanders, 2002; Sanders Markie-Dads & Turner, 2001), parent workbooks (Markie-Dadds, Sanders & Turner, 1999, 2000; Markie-Dadds, Turner & Sanders, 1998a), a range of training videos for use with Standard and Group Triple P (Sanders, Markie-Dadds & Turner, 1996b, 1996c, 1996d, 2004a, 2004b; Sanders, Turner & Markie-Dadds, 1996; Turner, Sanders & Markie-Dadds, 2000a, 2000b), books on parenting (Sanders, Markie-Dadds & Turner, 1996a), tip sheets (Markie-Dadds, Turner & Sanders, 1998b; Sanders & Turner, 2003) and wall charts (Turner, Markie-Dadds & Sanders, 1999).

Effectiveness. Many of the RCT evaluations of Group Triple P have involved the parents of 2- to 7-year old children. There are, however, half a dozen studies in which the parents of 2 to 12 year old children have been recruited. Evaluations of Group Triple P with the parents of children aged 2- to 12 include three pre-post studies, two with Australian parents (Cann, Rogers & Matthews, 2003; Dean, Myors & Evans, 2003) and one with Hong Kong parents (Leung, Sanders, Ip & Lau, 2006). Evaluations also include three RCTs, one with Swiss parents (Bodenmann, Cina, Ledermann & Sanders, 2008), one with Japanese parents resident in Australia (Matsumoto, Sofronoff, & Sanders, 2007) and one with Australian Aboriginal families (Turner, Richards, & Sanders, 2007).

All of these evaluations have collected parent report data on improvements in child behaviour using either the ECBI or the SDQ and have assessed change in parenting practices using parent self-reports (on the Arnold Parenting Scale or similar instrument). All of these studies reported

significant improvements in self-reported parenting behaviour together with statistically significant and clinically significant improvements in parent reported child behaviour. Maintenance of the gains recorded post treatment has almost always been reported at 3 month or 6 month follow-ups. The three RCTs demonstrate that parents randomly allocated to a waitlisted control group almost never report improvements in their parenting behaviour or the behaviour of their children over a 10 to 12 week period.

The evaluation studies reviewed in this section have two main shortcomings. First, none of the six studies provide any kind of breakdown by age so they do not tell us what proportion of children were in the 8- to 12-year age group or whether Triple P produced a lesser level of improvement in the behaviour of the older children as has been reported in studies of other programmes (e.g. Church, 2003; Reid, 1993). Secondly, none of these studies include direct observations of parent or child behaviour change. This is an important shortcoming given that Triple P evaluations which have collected both parent reports of change (on the ECBI or the SDQ) and direct observations of child behaviour change always report that the effect sizes for behaviour change measured by direct observation are considerably smaller than the effect sizes for parent reported child behaviour change (e.g. Nowak & Heinrichs, 2008; Thomas & Zimmer-Gimbeck, 2007).

Level 4 Triple P: Self-Directed Version

Description. Self directed Level 4 Triple P is a 10-week self-help program for parents who work through a parenting workbook *Every Parent's Self-Help Workbook* (Markie-Dadds et al., 1999). The week by week activities include the study of set readings and a suggested homework task for parents to complete. 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 in rural or remote areas.

Effectiveness. All but one of the studies of Self-Directed Triple P have involved the parents of young children. The one exception is the very small RCT by Nicholson and Sanders (1999) with parents of children aged 7-12 yrs. Both the Standard Triple P intervention and the Self-Directed Triple P intervention produce significant improvements in parent reported CBCL and PDR child behaviour scores and there were no significant differences between the levels of improvement reported by the parents who completed the Standard programme and those who completed the Self-Directed programme.

Triple P-Positive Parenting Programme Level 5 (Enhanced Triple P)

Description. The Level 5 programme, *Enhanced Triple P*, is designed for parents with significant personal problems in addition to the problem of managing one or more children who are engaging in high levels of antisocial behaviour. Level 5 Triple P is normally delivered on a one-to-one basis. It is most commonly provided to parents who have not changed as a result of the Level 4 intervention. This makes the Level 4 plus Level 5 combination a Tier 3 (more intensive indicated) intervention. It consists of up to 11 additional, individually tailored sessions designed to enhance self-regulation skills and communication skills. There are three additional 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 (Practice) teaches goal setting and self-evaluation skills and provides further practice in the parenting skills taught at Level 4. 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 interpersonal 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. All components involve active skills practice and homework exercises.

Effectiveness. The Level 4 plus Level 5 combination has been evaluated seven times but all but one of these have involved the parents of 2- to 7-year old children. The one exception (Sanders &

McFarland, 2000) involved the parents of 47 3- to 9-year olds. The parents, all of whom were suffering from depression, were assigned to one of two treatment groups: (a) Standard Triple P and (b) Standard Triple P plus Level 5 Triple P elements combined and delivered concurrently. While only the combined treatment had positive effects on measures of depression, both treatments had similar effects on the degree of improvement which occurred in parenting skills and the degree of improvement which occurred in child behaviour measured using both Parent Daily Report and direct observation in the home.

Triple P Population Trials

Description. Two population wide trials of Triple P have been reported to date: one in Australia (Sanders et al., 2008) and one in South Carolina (Prinz, Sanders, Shapiro, Whitaker, & Lutzker, (2009). Both involved the widespread training of existing counsellors, parent educators, social workers, nurses, and so on across existing health, education and welfare services to provide Level 2, 3, 4, and 5 Triple P interventions targeting the parents of some 13,000 4- to 7-year olds in 10 Brisbane suburbs in the Australian study and 85,000 families in 18 counties in the South Carolina study.

Effectiveness. These two population trials demonstrate that it is possible to scale up the training of large numbers of existing health, education and welfare personnel, to make available Triple P services to large numbers of parents and, by means of random telephone polling, to detect a fairly immediate effect on family health indicators such as reductions in coercive parenting, parental depression, and child behaviour problems (Sanders et al., 2008) and reductions in rates of child abuse (Prinz et al., 2009).

1.2 Parent Management Training: Oregon Model (PMTO)

Oregon style Parent Management Training grew out of extensive basic research into antisocial development in children. It is a flexible parent training programme designed for children aged 6 to 12 years.

Description. The basic programme is a Tier 2 (indicated) intervention designed for the parents of children with significant and persistent conduct problems. It involves 10, weekly, 2-hour sessions but a quarter of families have been found to need more than this to bring their parenting practices into the normal range. The parenting practices which are taught and practised include: teaching new behaviours using encouragement, praise, and reward charts; limit setting; monitoring the child's whereabouts; 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.

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. Adapted versions of PMTO exist as components of Linking the Interests of Families and Teachers (LIFT) and Multidimensional Treatment Foster Care (MTFC) which are reviewed in Part 4.

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. Kavanagh, Veltman, McCartney Soberman & Stormshak, 2005; Forgatch & Rains, 1997; Forgatch et al., 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). Information about PMTO can be found at www.isii.net/website.isii/NewFiles/about.html.

Effectiveness. Like Triple P, PMTO rests on a substantial research base. Unlike Triple P, the outcome measures used in PMTO evaluations 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). In addition, 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 (Dishion & Andrews, 1995; Forgatch & DeGarmo, 1999; Forgatch, DeGarmo & Beldavs, 2005; Reid, Eddy, Fetrow & Stoolmiller, 1999).

The earliest evaluations of PMTO 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, 1974). In the Patterson et al. (1982) trial, the total aversive behaviour of the children of PMTO trained group changed 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), the parents of teenage offenders in foster care settings (Chamberlain, 1990; Eddy, Whaley & Chamberlain, 2004), the parents of recently separated mothers and their sons (Forgatch & DeGarmo, 2002; Martinez & Forgatch, 2001), the parents of recently blended families (Forgatch, DeGarmo & Beldavs, 2005; DeGarmo & Forgatch, 2007) and the parents of Latino families (Martinez & Eddy, 2005). In the study with Latino parents 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 effects of PMTO have been replicated in RCTs undertaken by independent teams (e.g. Tremblay et al., 1992).

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.

Large scale trials of PMTO have been reported for Norway (Ogden, Sorlie and Amlund-Hagen, 2008), 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).

1.3 Incredible Years Parent Training Series

The Incredible Years parent management training programmes use short video clips to teach much the same kinds of parenting skills as are taught in the Triple P and PMTO programmes. Two of the

four parenting programmes were designed for the parents of 6 to 12-year old children: the School Age Basic and the Advanced programmes. The Basic programme is a Tier 2 (indicated) intervention and the Basic plus Advanced combination is a Tier 3 intervention (a more intensive indicated intervention).

Description of the School Age Basic programme. The School Age Basic programme, which has been recently updated, is designed for the parents of 6- to 12-year old children. It is an 18-20 week programme involving 2-hour, facilitator led, group discussions of 250 video vignettes. There are three modules: Program 8 How to Support your Child's Education, Program 9 Promoting Positive Behaviours, and Program 10 Reducing Inappropriate Behaviours. Program 9 covers the importance of parental attention and special time; social, emotional and persistence coaching; using effective praise and encouragement; and using tangible rewards. Program 10 covers reducing inappropriate behaviours by ignoring misbehaviour, time out, and logical and natural consequences.

Description of the Advanced parent training programme. The Advanced 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 involves 9 to 11, weekly, 2-hour group sessions and provides tuition in how to manage anger, improve problem solving and communication skills, get support from others, and work collaboratively with teachers. It consists of three components. Program 5 covers how to communicate effectively using active listening and speaking up, communicating positively, and giving and getting support. Programme 6 covers problem solving for parents and Program 7 covers teaching children to problem solve.

Resources. The Incredible Years parent training materials include comprehensive leader manuals for each programme, 7 DVDs for the School-Age Basic program, 7 DVDs for the Advanced Program, weekly “refrigerator notes” (brief points to remember) for parents, homework assignments and a number of supplemental resources. Incredible Years resources are available from the Incredible Years website at http://www.incredibleyears.com/

Effectiveness. The efficacy of the Incredible Years parent management training programmes has been demonstrated in seven randomised control trials by the programme developers and nine implementation trials by independent teams (including teams in England, Wales and Norway (Webster-Stratton & Herman, 2010). However, all but one of these have been evaluations of the effects of the programme on parents and children where the children are in the 3- to 6-year old age group. Only the English Pathfinder Early Intervention project appears to have collected data on the effects of Incredible Years parent management training in families with 8- to 12-year olds (Hutchings, Bywater & Shakespeare, 2009). This trial reports results for the children aged 8 years and above separately from the results of the entire cohort. The study was a pre-post study involving 165 children (58% of whom were aged 8 years and above.). Parents took part in a 12 session Basic programme plus the 8 session Advanced programme. At baseline 76% of parents rated the children as above the clinical cutoff of 127 on the ECBI Intensity scale. At follow-up this had fallen to 44% of caregivers. The effect size for the mean change was d=0.6 (0.4 in the intention to treat analysis). Similar changes were reported for the ECBI Problem scores and the SDQ Conduct scores. Like Triple P, evaluations of the Incredible Years programmes have ceased to collect direct observation data on changes in child behaviour and rely exclusively on parent reports. It is important to note also that only the 18 week programme can now be purchased and that this could result in an increased proportion of drop outs and a consequent reduction in programme effectiveness.

1.4 Parent-Child Interaction Therapy (PCIT)

Description. Parent Child Interaction Therapy is a Tier 3 (intensive indicated) intervention for the parents of children with persistent conduct problems. It was initially designed for the parents of 2-

to 6-year old children but this has been extended to 2- to 8-year olds in several recent evaluations. It aims to improve the quality of the parent-child relationship and to change parent-child interaction patterns. During PCIT a qualified therapist works with the parent (or parents) and child in a clinic setting with a one-way mirror. The therapist, who is in the observation room, communicates with the parent(s) using a radio microphone. PCIT has also been delivered in the home and in a specially fitted out caravan for use in rural areas.

Four versions of PCIT exist.

1. *Standard PCIT* consists of 12 to 14 sessions of 60-90 minutes held once or twice per week. Therapy consists of two phases. In the first phase (Child Directed Interaction) parents are taught how to talk with their child, to prompt desired behaviour and to respond to appropriate behaviour using descriptive praise, imitation, and enthusiasm at high rates while avoiding questions, commands and criticism. The aim is to establish a positive relationship between parent(s) and child. In the second phase (Parent-Directed Interaction), parents learn how to give clear, direct and age appropriate instructions, and how to provide consistent and effective consequences (such as rewards and time-out) for compliance and non-compliance. Parents have to meet a certain standard of performance in the CDI phase before being promoted to the PDI phase and a certain standard of performance in the PDI phase before graduating from the programme.
2. *Abbreviated PCIT* replaces the first two sessions with a video for parents to view at home and reduces coaching to five clinic sessions alternating with five telephone consulations of 30 minutes each.
3. *PCIT for maltreating parents* includes six additional sessions designed to motivate parent behaviour change and four weeks of additional group intervention designed to enhance maintenance. This version tends to involve 22 to 26 sessions.
4. *Enhanced PCIT* has been designed for parents with substance abuse, depression or marital issues. It is similar for PCIT for maltreating parents but includes additional individual therapy sessions for co-existing conditions.

Resources. Extensive PCIT resources are available either from the PCIT website at http://www.pcit.org/index.php, or the University of Florida site at http://pcit.phhp.ufl.edu/. Resources include audio equipment, PowerPoint presentations for training, assessment guides, coding forms, and manuals. There is a PCIT session manual (Eyberg, 2010), a PCIT coding manual (Eyberg, Nelson, Duke, & Boggs, 2010) and a PCIT book (Hembree-Kigin & McNeil, 1995). All manuals have been recently revised.

Effectiveness. Research on the effectiveness of PCIT for young children with conduct problems has been reviewed by Liberty and Church in Blisset et al. (2009) and in a meta-analysis by Thomas and Zimmer-Gembeck (2007) who examined the outcomes reported by 13 studies of 8 cohorts of non-compliant children and their parents undertaken by three research groups. The main results of the Thomas and Zimmer-Gimbeck (2007) review of changes in child behaviour were 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 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. These effects are reasonably consistent across cohorts and are strengthened by the inclusion of direct observations of parent-child interaction in most of the evaluations. The portability of PCIT has been demonstrated by its use with parents in Hong Kong, England, Russia, Canada, the Netherlands, Norway, Australia and New Zealand.

Since the Thomas and Zimmer Gembeck review, evaluations of PCIT on at least a further four cohorts of children with conduct problems have been published (Bagner & Eyberg, 2007; Chase & Eyberg, 2008; Solomon, Ono, Timmer & Goodlin-Jones, 2008; Leung, Tsang. Heung & Yiu, 2009). However, all but two of these 12 cohorts of children were children in the 2 to 6 year old age group.

Only two evaluations pf PCIT have included children in the 8- to 12-year old age group. The first of these (Chaffin et al., 2004) was a study of the parents of 4- to 12-year old children referred following child abuse notifications. The proportion of children in the 8- to 12-year age group is not given and the proportion of these with conduct problems is not given either. The second of these (Solomon et al., 2008) was a study of 10 boys aged 5 to 12 years with autism and falls outside of this review.

Examination of the PCIT manual makes it clear that the playroom context used with younger children would need to be modified before this intervention could be used with the parents of 8- to 12-year old children and that careful evaluations of the effectiveness of any attempt to adapt PCIT for the parents of older children would be essential prior to any large scale adoption of a version of PCIT modified for older children.

References

Bagner, D. & Eyberg, S. (2007). Parent-Child Interaction Therapy for disruptive behavior in children with mental retardation: A randomized controlled trial. *Journal of Clinical Child and Adolescent Psychology, 38*, 418-429.

Bank, L., Marlowe, J. H., Reid, J. B., Patterson, G. R., & Weinrott, M. R. (1991). A comparative evaluation of parent training for families of chronic delinquents. *Journal of Abnormal Child Psychology, 19*, 15-33.

Blisset, W., Church, J., Fergusson, D., Lambie, I., Langley, J., Liberty, K., … Werry, J. (2009). *Conduct problems: Effective Programmes for 3-7 year olds. Report by the Advisory Group on conduct Problems.* Wellington, NZ: Ministry of Social Development.

Bodenmann, G., Cina, A., Ledermann, T., & Sanders M. R. (2008). The efficacy of the Triple P-Positive Parenting Program in improving parenting and child behavior: A comparison with two other treatment conditions. *Behavior Research and Therapy, 46,* 411-427.

Brestan, E. V. & Eyberg, S. M. (1998). Effective psychosocial treatments of conduct-disordered children and adolescents: 29 years, 82 studies, and 5,272 kids. *Journal of Clinical Child Psychology, 27,* 180-189.

Calam, R., Sanders, R. M., Miller, C., Sadhnani, V., & Carmont, S. A. (2008). Can technology and the media help reduce dysfunctional parenting and increase engagement with preventative parenting interventions? *Child Maltreatment, 13,* 347-361.

Cann, W., Rogers, H., & Matthews, J. (2003). Family Intervention Services program evaluation: A brief report on initial outcomes for families. *Australian e-Journal for the Advancement of Mental Health, 2(3)*.

Chaffin, M., Silovsky, J., Funderbunk, B., Valle, L., Brestan, E., Balachova, T., … Bonner, B. (2004). Parent-Child Interaction Therapy with physically abusive parents: Efficacy for reducing future abuse reports. *Journal of Consulting and Clinical Psychology, 72*(3), 500-510.

Chamberlain, P. (1990). Comparative evaluation of Specialized Foster Care for seriously delinquent youths: A first step. *Community Alternatives: International Journal of Family Care*, 2(2), 21-36.

Chase, R. & Eyberg, S. (2008) Clinical presentation and treatment outcome for children with comorbid externalizing and internalizing symptoms. *Anxiety Disorders, 22*, 273-282.

Church, R. J. (2003). *The definition, diagnosis and treatment of children and youth with severe behaviour difficulties: A review of research.* Report prepared for the Ministry of Education. Christchurch, N.Z.: University of Canterbury, Education Department.

De Graff, I., Onrust, S., Haverman, M., & Janssens, J. (2009). Helping families improve: An evaluation of two primary care approaches to parenting support in the Netherlands. *Infant and Child Development, 18,* 481-501, doi: 10.1002/icd.634.

De Graaf, I., Speetjens, P., Smit, F., de Wolff, M., & Tavecchio, L. (2008a). Effectiveness of the Triple P Positive Parenting Program on behavioral problems in children: A meta-analysis. *Behavior Modification, 32,* 714-735.

De Graaf, I., Speetjens, P., Smit, F., de Wolff, M., & Tavecchio, L. (2008b). Effectiveness of the Triple P Positive Parenting Program on parenting: A meta-analysis. *Family relations, 57,* 553-

566.
Dean, C., Myors, K., & Evans, E. (2003). Community-wide implementation of a parenting program: The South East Sydney Positive Parenting Project. *Australian e-Journal for the Advancement of Mental Health, 2(3)*.
DeGarmo, D. S., & Forgatch, M. S. (2007). Efficacy of parent training for stepfathers: From playful spectator and polite stranger to effective stepfathering. *Parenting*, *7*, 331-355.
DeGarmo, D. S., Patterson, G. R., & Forgatch, M. S. (2004). How do outcomes in a specified parent training intervention maintain or wane over time? *Prevention Science*, *5,* 73-89
Dishion, T. J., & Andrews, D. W. (1995). Preventing escalation in problem behaviors with high-risk young adolescents: Immediate and 1 year outcomes. *Journal of Consulting and Clinical Psychology, 63*, 538-548.
Dishion, T. J., Kavanagh, K., & Soberman, L. (In press). Adolescent Transitions Program: Assessment and intervention sourcebook. New York: Guilford Press.
Dishion, T. J., Kavanagh, K., Veltman, M., McCartney, T., Soberman, L., & Stormshak, E. (2005). *The Family Management Curriculum.* Eugene, OR: Child and Family Center Publications.
Dishion, T. J., & Patterson G. R. (1996). *Preventive parenting with love, encouragement and limits: The preschool years.* Eugene, OR.: Castalia Publishing Co.
Eddy, J. M., Whaley, R. B., & Chamberlain, P. (2004). The prevention of violent behavior by chronic and serious male juvenile offenders: A 2-year follow-up of a randomized clinical trial. *Journal of Emotional and Behavioral Disorders, 12*, 28.
Eyberg, S. (2010). *Parent-Child Interaction Therapy: Integrity checklists and session manuals.* University of Florida.
Eyberg, S. M., Nelson, M. M., & Boggs, S. R. (2008). Evidence-based psychosocial treatments for children and adolescents with disruptive behavior. *Journal of Clinical Child and Adolescent Psychology, 37,* 215-237.
Eyberg, S. M., Nelson, M. M., Duke, M., & Boggs, S. R. (2010). *Manual for the Dyadic Parent-Child Interaction Coding System.* (3rd ed.). University of Florida.
Fonagy, P., Target, M., Cottrell, D., Phillips, J., & Kurtz, Z. (2002). *What works for whom? A critical review of treatments for children and adolescents.* New York: The Guilford Press.
Forgatch, M. S. (1990). Study skills for success: A videotape and manual for parents and adolescents to improve home study skills and schoolwork [Videotape]. Eugene, OR: Oregon Social Learning Centre.
Forgatch, M. S., & DeGarmo, D. S. (1999). Parenting through change: An effective prevention program for single mothers. *Journal of Consulting and Clinical Psychology, 67*, 711-724.
Forgatch, M. S., & DeGarmo, D. S. (2002). Extending and testing the social interaction learning model with divorce samples. In J. B. Reid, G. R. Patterson, & J. Snyder (Eds.), *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention* (pp. 235-266). Washington: DC: American Psychological Association.
Forgatch, M. S., DeGarmo, D. S., & Beldavs, Z. (2005). An efficacious theory-based intervention for stepfamilies. *Behavior Therapy, 36, 357–365*.
Forgatch, M. S., & Marquez, B. (1993). The Divorce Workout. (Videotape). Eugene, OR: Oregon Social Learning Centre.
Forgatch, M. S., & Patterson, G. R. (2005). *Parents and adolescents living together. Part 2: Family problem solving* (2nd ed.). Champaign, IL: Research Press.
Forgatch, M. S., & Rains, L. A. (1997). *MAPS: Marriage and parenting in stepfamilies* (Parent training manual). Eugene, OR: Oregon Social Learning Center.
Forgatch, M. S., Rains, L. A., & Knutson, N. M. (2002). *A Course in PMTO: The Basic OSLC Intervention Model* (Vols. 1, 2, & 3). Eugene, OR: Oregon Social Learning Center/ Implementation Sciences International Inc.
Forgatch, M. S., Rains, L. A., & Knutson, N. M. (2005). *A Course in PMTO: The Basic OSLC Intervention Model* (Vol. 4). Eugene, OR: Oregon Social Learning Center/Implementation Sciences International Inc.
Forgatch, M. S., Rains., L., A., Elgesem, E., & Knutson, N. (2006). *A course in the basic PMTO model: Workshops 1, 2 and 3.* Eugene, OR: Oregon Social Learning Center/Implementation Sciences International, Inc.
Forgatch, M. S., & Reid, J. B. (1991). Teaching new behavior [Videotape]. Eugene, OR: Northwest Media.

Hembree-Kigin, T. L., & McNeil, C. B. (1995). *Parent-child interaction therapy.* New York: Plenum Press.
Hutchings, J., Bywater, T., & Shakespeare, K. (2009.) *Pathfinders Early Intervention Project Phase 1: Six English local authorities: Report on outcomes from the Incredible Years Groups*. Bangor University: School of Psychology.
Kazdin, A.E. (1998). Psychosocial treatments for conduct disorder in children. In P.E. Nathan & J.M. Gorman (Eds.), *A guide to treatments that work* (pp. 65-89). New York: Oxford University Press.
Knutson, N., Forgatch, M. & Rains, L. (2003). *Fidelity of implementation rating system (FIMP): The manual for PMTO.* Eugene, OR: Oregon Social Learning Center.
Knutson, N., Rains, L., & Forgatch, M. (2006). *PMTO modules: Workshop trainer guide.* Eugene, OR: Oregon Social Learning Center/Implementation Sciences International Inc.
Leung, C., Sanders, M. R., Ip, F., & Lau, J. (2006). Implementation of Triple P-Positive Parenting Program in Hong Kong: Predictors of programme completion and clinical outcomes. *Journal of Children's Services, 1,* 4-17.
Leung, C., Tsang, S., Heung, K, & Yiu, I. (2009). Effectiveness of Parent-Child Interaction Therapy (PCIT) among Chinese families. *Research on Social Work Practice, 19,* 304-313.
Markie-Dadds, C., Sanders, M. R., & Turner, K. M. T. (1999). *Every parent's self-help workbook*. Brisbane, QLD: Families International Publishing.
Markie-Dadds, C., Sanders, M. R., & Turner, K. M. T. (2000). *Every parent's family workbook*. Brisbane, QLD: Families International Publishing.
Markie-Dadds, C., Turner, K. M. T. & Sanders, M. R. (1998a). *Every parent's group workbook*. Brisbane, QLD, Australia. Families International Publishing.
Markie-Dadds, C., Turner, K. M. T., & Sanders, M. R. (1998b). *Triple P tip sheet series for positive parenting*. Brisbane, QLD: Families International Publishing.
Martinez, C. R., & Eddy, J. M. (2005). Effects of culturally adapted parent management training on Latino youth behavioral health outcomes. *Journal of Consulting and Clinical Psychology, 73,* 841-851.
Martinez, C. R., & Forgatch, M. S. (2001). Preventing problems with boys' noncompliance: Effects of a parent training intervention for divorcing mothers. *Journal of Consulting and Clinical Psychology, 69,* 416-428.
Matsumoto, Y, Sofranoff, K., & Sanders, M. R. (2007). The efficacy and acceptability of the Triple P-Positive Parenting Program with Japanese parents. *Behaviour Change, 24,* 205-218.
McCabe, C., Sutcliffe, P., & Kaltenthaler, E. (2005). *Parent-training programmes in the management of conduct disorder: A report from the NICE Decision Support Unit and the ScHARR Technology Assessment Group.* University of Sheffield, School of Health and Related Research.
McCart, M. R., Priester, P. E., Davies, W. H., & Azen, R. (2006). Differential effectiveness of behavioral parent-training and cognitive-behavioral therapy for antisocial youth: A meta-analysis. *Journal of Abnormal Child Psychology, 34,* 527-543.
McMahon, R. J., Wells, K. C., & Kotler, J. S. (2006). Conduct problems. In E. J. Mash, & R. A. Barkley (Eds.), *Treatment of childhood disorders* (pp. 137-268). New York: Guilford Press.
Nicholson, J. M. & Sanders, M. R. (1999). Randomized controlled trial of behavioral family intervention for the treatment of child behavior problems in stepfamilies. *Journal of Divorce and Remarriage, 30(3/4),* 1-23.
Nowak, C., & Heinrichs, N. (2008). A comprehensive meta-analysis of Triple P-Positive Parenting Program using hierarchical linear modeling: Effectiveness of moderating variables. *Clinical Child and Family Psychology Review. 11,* 114-144.
Ogden, T., Sorlie, M., & Amlund-Hagen, K. (2008, February). Implementing and evaluating evidence-based programs targeting conduct problems in Norwegian children and youth. Paper presented to the 21st Annual RTC Conference, Tampa.
Patterson, G. R., Chamberlain, P., & Reid, J. B. (1982). A comparative evaluation of a parent-training program. *Behavior Therapy, 13,* 638-650.
Patterson, G. R., DeGarmo, D. S., & Forgatch, M. S. (2004). Systematic changes in families following prevention trials. Journal of Abnormal *Child Psychology, 32*, 621-633
Patterson, G. R., & Forgatch, M. S. (2005). *Parents and adolescents living together. Part 1: The basics.* (2nd ed.). Champaign, IL: Research Press.

Patterson, G. R., Reid, J. B., & Eddy, J. M. (2002). A brief history of the Oregon model. In J. B. Reid, G. R. Patterson, & J. Snyder (Eds.), *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention* (pp. 3-21). Washington: DC: American Psychological Association.

Prinz, R. J., Sanders, M. R., Shapiro, C. J., Whitaker, D. J., & Lutzker, J. R. (2009). Population-based prevention of child maltreatment: The U. S. Triple P System population trial. *Prevention Science, 10,* 1-12.

Reid, J. B. (1993). Prevention of conduct disorder before and after school entry: Relating interventions to developmental findings. *Development and Psychopathology, 5,* 243-262.

Reid, J. B., Eddy, J. M., Fetrow, R. A., & Stoolmiller, M. (1999). Description and immediate impacts of a preventive intervention for conduct problems. *American Journal of Community Psychology, 27*, 483-517.

Sanders, M. R. (1999). Triple P-Positive Parenting Program: Towards an empirically validated multilevel parenting and family support strategy for the prevention of behavior and emotional problems in children. *Clinical Child and Family Psychology Review, 2,* 71-90.

Sanders, M. R., Calam, R., Durand, M., Liversidge, T., & Carmont, S. A. (2008). Does self-directed and web-based support for parents enhance the effects of viewing a reality television series based on the Triple P-Positive Parenting Programme? *Journal of Child Psychology and Psychiatry, 49,* 924-932.

Sanders, M. R., Markie-Dadds, C., & Turner, K. M. T. (1996a). *Positive parenting*. Brisbane, QLD, Australia, QLD, Australia: Families International Publishing.

Sanders, M. R., Markie-Dadds, C., & Turner, K. M. T. (1996b). *Every parent's guide to infants and toddlers* [Videotape and booklet]. Brisbane, QLD: Families International.

Sanders, M. R., Markie-Dadds, C., & Turner, K. M. T. (1996c). *Every parent's guide to primary schoolers* [Videotape and booklet]. Brisbane, QLD: Families International.

Sanders, M. R., Markie-Dadds, C., & Turner, K. M. T. (1996d). *Every parent's survival guide* [Videotape and booklet]. Brisbane, QLD: Families International.

Sanders, M. R., Markie-Dadds, C., & Turner, K. M. T. (2001). *Practitioner's manual for Standard Triple P*. Brisbane, QLD: Families International Publishing.

Sanders, M. R., Markie-Dadds, C., & Turner, K. M. T. (2003). Theoretical, scientific and clinical foundations of the Triple P-Positive Parenting Program: A population approach to the promotion of parenting competence. *Parenting Research and Practice Monograph, 1,* University of Queensland, Australia: Parenting and Family Support Centre.

Sanders, M. R., Markie-Dadds, C., & Turner, K. M. T. (2004a). *Positive parenting: A survival guide for indigenous families* [Videotape]. Brisbane, QLD: Triple P International.

Sanders, M. R., Markie-Dadds, C., & Turner, K. M. T. (2004b). *Every parent's survival guide* (rev. ed.). [Videotape and booklet]. Brisbane, QLD: Triple P International.

Sanders, M. R., & McFarland, M. L. (2000). The treatment of depressed mothers with disruptive children: A controlled evaluation of cognitive behavioral family intervention. *Behavior Therapy,* 31, 89-112.

Sanders, M. R., Montgomery, D. T., & Brechman-Toussaint, M. L. (2000). The mass media and the prevention of child behavior problems: The evaluation of a television series to promote positive outcomes for parents and their children. *Journal of Child Psychology and Psychiatry, 41,* 939-948.

Sanders, M. R., Ralph, A., Sofronoff, K., Gardiner, P., Thompson, R., Dwyer, S., & Bidwell, K. (2008). *Every Family*: A population approach to reducing behavioral and emotional problems in children making the transition to school. *Journal of Primary Prevention, 29, 197-222*

Sanders, M. R., & Turner, K. M. T. (2002, October). The role of the media and primary care in the dissemination of evidence-based parenting and family support interventions. *The Behavior Therapist,* 156-166.

Sanders, M. R., & Turner, K. M. T. (2003). *Triple P tip sheet series for Selected Triple P*. Brisbane, QLD: Triple P International.

Sanders, M.R., Turner, K.M.T., & Markie-Dadds, C. (1996). *Every parent's guide to preschoolers* [Videotape and booklet]. Brisbane, QLD: Families International.

Solomon, M., Ono, M., Timmer, S., & Goodlin-Jones, B. (2008). The effectiveness of Parent-Child Interaction Therapy for families of children on the autism spectrum. *Journal of Autism and Developmental Disorders, 38,* 1767-1776.

Thomas, R. & Zimmer-Gembeck, M. J. (2007). Behavioral outcomes of Parent-Child Interaction Therapy and Triple P–Positive Parenting Program: A review and meta-analysis. *Journal of Abnormal Child Psychology, 35,* 475-495.

Tremblay, R. E., Vitaro, F., Bertrand, L., LeBlanc, M., Beauchesne, H., Boileau, H., & David, L. (1992). Parent and child training to prevent early onset of delinquency: The Montréal longitudinal-experimental study. In J. McCord & R. Tremblay (Eds.), *Preventing antisocial behavior: Interventions from birth through adolescence* (pp. 117-138). New York: Guilford.

Turner, K. M. T., Markie-Dadds, C., & Sanders, M. R. (1999). *Five steps to positive parenting* [Wall chart]. Brisbane, QLD: Families International Publishing.

Turner, K. M. T., Markie-Dadds, C., & Sanders, M. R. (2002). *Facilitator's manual for Group Triple P* (rev. ed.). Brisbane, QLD: Triple P International.

Turner, K. M. T., Richards, M., &. Sanders, M. R. (2007). A randomized clinical trial of Group Triple P for Australian Indigenous families. *Journal of Paediatrics and Child Health, 43,* 429-437.

Turner, K. M. T., & Sanders, M. R. (2006). Help when it's needed first: A controlled evaluation of brief, preventive behavioral family intervention in a primary care setting. *Behavior Therapy, 37,* 131-142.

Turner, K. M. T., Sanders, M. R., & Markie-Dadds, C. (2000a). *Dealing with disobedience* [Videotape]. Brisbane, QLD: Families International.

Turner, K. M. T., Sanders, M. R., & Markie-Dadds, C. (2000b). *Tidying up* [Videotape]. Brisbane, QLD: Families International.

Vitaro, F., Brendgen, M., & Tremblay, R. E. (2001). Preventive intervention: Assessing its effects on the trajectories of delinquency and testing for mediational processes. *Applied Developmental Science, 5,* 201-213.

Walter, H., & Gilmore, S. K. (1973). Placebo versus social learning effects in parent training procedures designed to alter the behaviors of aggressive boys. *Behavior Therapy, 4,* 361-371.

Webster-Stratton, C, & Herman, K. C. (2010). Disseminating Incredible Years series early-intervention programs: Integrating and sustaining services between school and home. *Psychology in the Schools, 47,* 36-54.

Wiltz, N. A., & Patterson, G. R. (1974). An evaluation of parent training procedures designed to alter inappropriate aggressive behavior of boys. *Behavior Therapy, 5,* 215-221.

Part 2
School-Based Interventions for Children Aged 8 to 12 Years with Persistent Conduct Problems

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Research into the treatment of children with conduct problems in school settings is extensive and has been reviewed by a number of authors. These reviews are of two types: (a) those which ignore the single case experimental research (e.g., Blueprints for Violence Prevention, 2010; Brestan & Eyberg, 1998; Mytton, DiGuiseppi, Gough, Taylor & Logan, 2007; Eyberg, Nelson & Boggs, 2008; Wilson, Lipsey & Derzon, 2003; Wilson, Gottfredson, & Najaka, 2001) and (b) those that include the single case experimental research (e.g., Church, 2003; Lewis, Hudson, Richter, & Johnson, 2004; McMahon, Wells & Kotler, 2006; Pearce, Reid & Epstein, 2004; Reddy, Newman, de Thomas & Chun, 2009; Stage & Quiroz, 1997; Vannest, Harrison, Temple-Harvey, Ramsey, & Parker, 2010). Because the research into educational interventions for children with disruptive behaviour disorders includes more than 250 replicated single case experiments examining the effectiveness of many different educational interventions, this research must be included in any consideration of school-based treatments for children with conduct problems.

2.1 School-Wide Positive Behaviour Support (SWPBS)

As its name suggests, School-Wide Positive Behaviour Support (SWPBS) is a Tier 1 (universal) intervention designed to reduce the incidence of conduct problems across all areas of a school. SWPBS is an extension of applied behaviour analysis (Dunlap, Carr, Horner, Zarcone & Schwartz, 2008). It began life at the University of Oregon as Project PREPARE (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 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).

Description. The primary aims of School-Wide Positive Behaviour Support are (a) to redesign the school environment to reduce problem behaviour, (b) to provide teachers with new skills to reduce problem behaviour, (c) to rigorously reward appropriate student behaviour while withholding rewards for problem behaviour, and (d) to put in place an active and on-going data collection system which can be used to guide future changes. Implementation of SWPBS in a school involves:

- establishing a school-wide PBS team which has the task of implementing and updating the school-wide discipline system
- ensuring buy-in from all of the teachers in the school
- selecting and teaching 3-5, positively stated, school-wide behavioral expectations
- establishing a system to regularly acknowledge students who are behaving appropriately
- establishing a set of consequences for inappropriate behaviour and implementing those consequences consistently across every classroom and every public area
- collecting and reporting disciplinary data weekly to the behaviour support team and monthly to the school.

In schools that buy in to SWPBS, all the teachers in a school are trained over a period of several months to treat recurring misbehaviours in the same way that they treat recurring academic mistakes, that is, as learning opportunities which require a teaching goal, demonstrations of what is expected, practice, feedback, monitoring, and reinforcement for improvement. SWPBS is the first step in the implementation of a three-tier Response to Intervention model that includes primary

(school-wide), secondary (classroom), and tertiary (individual) interventions (Sugai & Horner, 2006).

Resources. SWPBS is a manualised programme (Sailor et al., 2010). Instruments to measure fidelity of implementation have been developed and validated (Horner, Todd, Lewis-Palmer, Irvin, Sugai, & Boland, 2004; Walker, Cheney & Stage, 2009). Details are available on the PBIS website at: http://www.pbis.org.

Effectiveness. A considerable number of controlled evaluations of the effects of both the earlier version (EBS) and the later version (SWPBS) of this programme have been reported. Most have involved primary schools. Most are pre-post or time series evaluations of the effects of introducing EBS or SWPBS on teacher behaviour, disciplinary referrals, stand downs, or other measures of misbehaviour (e.g. Colvin et al., 1996; Lassen, Steele, & Sailor, 2006; Luiselli, Putnam, Handler & Feinberg, 2005; Metzler, Biglan, Rusby & Sprague, 2001; Nersesian, Todd, Lehmann & Watson, 2000; Simonsen, Britton & Young, 2009, Taylor-Green et al., 1997). All of these studies report a reduction in the number of disciplinary referrals (following introduction of SWPBS) to 60% or less of the pre-programme rate. Once disciplinary referrals have been substantially reduced, several within-school evaluations have shown that both the targeted changes in teacher behaviour and the greatly reduced disciplinary referrals can be maintained over periods of 3 to 5 years (Lassen et al., 2006; Luiselli et al., 2002; Taylor-Greene & Kartub, 2000).

The first randomised control trial of EBS (Colvin et al., 1993) involved two large, matched, primary schools. 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 et al., 2001) produced similar results. More recently, the results from two large scale effectiveness trials have been reported. The first was a 3 year study involving 63 schools in Illinois and Hawaii. Unfortunately, initial attempts to capture disciplinary referrals in a standard manner failed and this has greatly weakened the conclusions which can be drawn from this study. The second involved 21 Maryland primary schools randomly assigned to SWPBS training and 16 randomly assigned to a business as usual condition. The first report of this trial describes the level of treatment fidelity achieved (Bradshaw, Reinke, Brown, Bevans & Leaf, 2008) and the second describes the reductions in disciplinary reports and suspensions achieved by the SWPBS schools (Bradshaw, Mitchel & Leaf, 2009).

One of the RCTs undertaken to date examined the effects of SWPBS on the behaviour of children with 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 (1992) SSBD screening system. Over a 6 month period, the mean score of the 20 behaviour disordered 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.

According to the PBIS website SWPBS is now being implemented in over 9,000 schools across some 34 states and 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); a report on the Maryland implementation (Barrett, Bradshaw & Lewis-Palmer, 2008), a report from British Columbia (Chapman & Hofweber, 2000) and an evaluation report on the Illinois experience (Eber, 2005). These dissemination efforts are resulting in studies of barriers to implementation (e.g., Kincaid, Childs, Blase & Wallace, 2007). A model for calculating the probable costs and savings (at both the school level and the district level) during the implementation of SWPBS has been provided by Blonigen (Blonigen, Harbaugh, Singell, Horner, Irvin & Smolkowski, 2008).

2.2 The Good Behaviour Game (GBG)

Description. The Good Behaviour Game is a Tier 1 (universal) intervention. It is a class wide interdependent group reinforcement programme in which the class is divided into two or three matched teams and reinforcement for meeting classroom behaviour goals takes the form of a group reward selected by the winning team. The GBG also works 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 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.

Resources. Resources for the Good Behaviour Game include a *Schoolwide Implementation Guide* (Embry, Straatemeier, Lauger & Richardson, 2003a), a *Teacher's Guide* (Embry, Straatemeier, Lauger & Richardson, 2003b), an implementation DVD, wristbands, stickers, and home notes for parents. Resources are available from the Hazelden Bookstore at http://www.hazelden.org/web/landing.view.

Effectiveness. 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 24 replicated single case experiments and two randomised groups evaluations. Seven of the 26 involved students who might be considered to be students with conduct problems (Darch & Thorpe, 1977; Darveaux, 1984; Davies & Witte, 2000; Gresham & Gresham, 1982; Johnson, Turner & Konarski, 1978; Phillips and Christie, 1986; Salend, Reynolds & Coyle, 1989). 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. 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 Good Behaviour Game and its effects have been replicated with New Zealand samples (e.g. Thomas, Pohl, Presland & Glynn, 1977).

2.3 Differential Attention

Differential attention can be used either as a Tier 1 (universal) classroom management technique or as a Tier 2 (indicated) intervention for managing the disruptive classroom behaviour of individual children.

Description. Functional assessment (reviewed below) frequently reveals that the teacher is attending much more frequently to the child with conduct problems (or to children in general) following disruptive behaviour than following desired classroom behaviour. Because teacher attention functions as a reinforcing outcome for the majority of primary school aged children, this pattern of teacher attention often functions to strengthen and maintain disruptive behaviour in the classroom (just as it does in the home setting). Differential attention training is training designed to reverse these contingencies so that teacher attention follows desired behaviour much more frequently than it follows disruptive and antisocial behaviour.

Resources. Differential attention is one of the interventions taught in all of the manualised parent management training programmes described in Part 1 of this Appendix. Manualised versions for

teachers will be found in various sources including the CLASS component of First Steps to Success (Walker, Stiller, Golly, Kavanagh, Severson & Feil, 1997), the Incredible Years Teacher Classroom Management Training programme (Webster-Stratton & Reid, 2002), Weldall and Merrett's BATPACK (Weldall & Merrett, 1985), and Vance Hall's "How to Manage Behaviour" series (Hall & Hall, 1998a, 1998b).

Effectiveness. When teachers in classrooms with high rates of disruptive behaviour are trained to attend 70-80% of the time to appropriate (rather than disruptive) behaviour, this change on its own is often sufficient to greatly reduce the level of disruptive behaviour. This effect has been observed in more than a dozen replicated single case experiments involving children and youth from Year 1 to Year 10 (e.g., Hall, Lund & Jackson, 1968; Madsen, Becker & Thomas, 1968; Seymour & Sanson-Fischer, 1975; Thomas, Becker & Armstrong, 1968; Ward & Baker, 1968).

The same effect (increased rates of teacher attention to appropriate behaviour producing increased rates of appropriate behaviour by the child) also occurs in children with persistent conduct problems (e.g., Sutherland, Wehby & Copeland, 2000; Weissenburger & Loney, 1977; Wood, Umbreit, Liaupsin & Gresham, 2007). Training studies suggest that the task of motivating a teacher to switch from 70% attention to misbehaviour to 70% attention to appropriate behaviour can be accomplished in a few weeks (e.g., Madsen, Madsen, Saudergas, Hammond, Smith & Edgar, 1970).

2.4 Increased Opportunity to Learn

The experimental analysis of what works with children with conduct problems has found that simply increasing the level and pace of involvement in classroom activities results in a marked reduction in the incidence of misbehaviour both at the classroom level and at the individual level. Three interventions which increase the pace of instruction in the classroom, and which have a similar effect on disruptive behaviour include the use of response cards, increasing the pace of instruction, and classwide peer tutoring. All three of these interventions can be used either as a Tier 1 (universal) classroom management technique or as a Tier 2 (indicated) intervention for managing the disruptive classroom behaviour of individual children.

Response Cards

Description. Response card are acetate cards or small whiteboards which students can write on during the lesson and display to the teacher in response to a teacher question. This procedure enables every student in the class to respond to designated teacher questions and enables the teacher (a) to provide immediate feedback to all students and (b) to identify any errors and provide corrective feedback with respect to these. A manualised procedure for using response cards will be found in Cipani (2007).

Effectiveness. Effects of the response card procedure have been reviewed by Randolph (2007). According to Randolph, there are about 30 experimental evaluations of the use of response cards, of which 18 met inclusion criteria for his meta-analysis. Of these, four measured the effects of response cards on the disruptive behaviour or engagement of primary school children (Armendariz & Umbreit, 1999; Christie & Schuster, 2003; Davis & O'Neil, 2004; Lambert, 2002). In all four cases, the lessons using response cards contained fewer disruptions.

Increasing the Pace of Instruction

Description. A second way of increasing response opportunities during classroom lessons is for the teacher to present questions and opportunities to respond at a faster pace. A rapid pace of teacher student interactions is one of the defining features of Direct Instruction systems which are amongst the most effective teaching systems developed to date (Adams & Engelman, 1996).

Effectiveness. A review of the research on lesson pacing identified eight single case experimental analyses of which six were reviewed by Sutherland and Wehby (2001). Four pacing studies met criteria for this review (Haydon, Mancil & Van Loan, 2009; Sutherland, Alder & Gunter, 2003; Tincani & Crozier, 2007; West & Sloan, 1986). In all four experiments, teachers were able, with relatively brief training, to increase the pace of teacher-student interaction and this resulted in reduced disruptive behaviour and/or increased task engagement.

Classwide Peer Tutoring

A third way of increasing learning opportunities is to recruit classmates to function as peer tutors. Peer tutoring has a long history both in classroom practice and in classroom research. There exist some 28 separate literature reviews of peer tutoring of which about half are meta-analyses (Hattie, 2009). The latest meta-analysis by Rohrbeck and Ginsburg-Block is a review of 90 randomised groups evaluations of peer tutoring and cooperative learning (Rohrbeck, Ginsburg-Block, Fantuzzo & Miller, 2003; Ginsburg-Block, Rohrbeck, & Fantuzzo, 2006). The main analysis (Rohrbeck et al., 2003) reports a mean weighted ES across all measures from 81 evaluations of .33 and an ES for literacy outcomes of .27. A secondary analysis (Ginsburg-Block et al., 2006) reports an ES for "behaviour" outcomes of .45. A narrative review of a further set of 14 single case and pre-post evaluations of peer tutoring with children with conduct problems has been provided by Ryan, Reid and Epstein (2004). There are also about 50 single case experimental analyses of peer tutoring known to the writer which do not appear in either the Rohrbeck or Ryan reviews. There are three main peer tutoring systems which, taken together, make classwide peer tutoring an evidence-based practice. These are Greenwood's Classwide Peer Tutoring (CPT), Fantuzzo's reciprocal peer tutoring (RPT), and Fuchs' Peer Assisted Learning (PALS).

1. In Classwide Peer Tutoring (Greenwood, Delquadri & Hall, 1989), the teacher assigns students to teams of two for a week, daily peer tutoring sessions are scheduled in spelling, maths and reading and last for 30 minutes, 10 minutes of each session is spent with the first student as tutor followed by 10 minutes with the second student as tutor, and the final 10 minutes is spent marking work and assigning points which are reported to the teacher and added to the team's total.

2. Reciprocal peer tutoring operates in a similar fashion. The main differences are that the dyads are grouped according to achievement level and do not change each week, the dyads meet for two 45 minute sessions a week, and the dyads select an improvement goal and an activity reward which they can enjoy if they meet their goal (Fantuzzo, King & Heller, 1992).

3. PALS is more complex with tutors being selected on the basis of their performance on curriculum based measures (CBM). In addition, tutors have scripts to follow when teaching and revising new procedures (e.g. new maths operations) and tutors receive more extensive training. Tutees complete weekly fluency tests, enter their scores into a computerised database, and receive immediate feedback on their rate of improvement (Fuchs & Fuchs, 1995).

Effectiveness. Classwide Peer Tutoring has been evaluated using a large RCT in which students were followed for 4 years. By 4th grade CPT students' scores on the Metropolitan Achievement Test (adjusted for IQ and first grade achievement) were significantly higher than those of the control group and similar to those of a mid-decile reference school group (Greenwood et al., 1989).

Reciprocal teaching has been evaluated using a number of replicated single case experiments (e.g., Fantuzzo et al., 1992; Heller & Fantuzzo, 1993). In all cases the RPT students demonstrated accelerated progress (compared to non RPT students) on both tests of the computational operations which had been practised and on a standardised test of maths computation. Teacher ratings of student conduct also improved – although this would have been influenced in part by the reward structure of RPT.

PALS has been evaluated using several RCTS. When PALs was used as part of maths instruction (replacing the seatwork segment of maths lesson) in 40 Grade 2-4 classrooms in 9 schools, PALS

students obtained significantly higher scores on a curriculum aligned post test than students in control classes. The effect size on test scores was .4 (Fuchs & Fuchs, 1995). In none of these evaluations has the data for children with conduct problems been separately analysed.

2.5 Functional Assessment and Analysis (FAA)

Functional Assessment and Analysis is a procedure for identifying the intervention which is most likely to have a positive effect on the behaviour of the individual with conduct problems. Because FAA is increasingly becoming the first step of effective classroom interventions for disruptive and antisocial behaviour it is reviewed separately in order to avoid repetition. FAA is an individually targeted procedure which makes it a Tier 2/Tier 3 (indicated) intervention.

Description. Functional Assessment and Analysis is an assessment process which combines direct observation of the behaviour of the referred child together with teacher reports to identify:
(a) the settings which are giving rise to antisocial behaviour
(b) the antecedent cues which are triggering antisocial responses in these settings,
(c) the reinforcing consequences which are resulting from antisocial responses,
(d) the negatively reinforcing outcomes which are resulting from successful escape and avoidance responses and
(e) the consequences of prosocial alternative responses which make these responses a less attractive way of responding to social demands.

During the functional *assessment* phase, observations of these events is used to devise a behaviour management and/or learning management plan which is likely to motivate a change from antisocial to prosocial ways of responding to classroom demands and learning activities. During the functional *analysis* phase, this intervention is implemented for a week as an analytical test of the conclusions which were drawn from the functional assessment. If the analytical test confirms the hypothesised functions of antisocial and prosocial responses to classroom demands and learning activities, this is followed by the development of an individual education plan (IEP) which specifies the changes which are to be implemented by the teacher with respect to the referred child's instructional goals, learning tasks, behavioural consequences, and social skills instruction during the forthcoming weeks.

Resources. FAA is a manualised procedure. There are nine published manuals written for school personnel which describe the functional assessment and analysis process. See, for example, Chandler and Dalquist (2010), Crone and Horner (2003), and Umbreit, Ferro, Liaupsin and Lane (2007).

Effectiveness. The effectiveness of FAA procedures can be evaluated by measuring the proportion of functional assessments which result in interventions which, when implemented with fidelity in the classroom, have resulted in a reduction in disruptive and other antisocial behaviours in the school setting. There have been two reviews of the FAA studies involving children with conduct problems (Heckaman, Conroy, Fox & Chait, 2000; Scott et al., 2004). The Scott et al. (2004) review examined a subset of 12 of the 22 studies reviewed by Heckaman et al. (2000) and will not be further considered here. The 22 FAA studies reviewed by Heckaman et al. (2000) involved 68 children with conduct problems. Of these, 24 of the children in 13 of the studies fell within the 8 to 12 year old age range. In all cases the intervention selected on the basis of the functional assessment resulted in a reduction in antisocial behaviour and/or an increase in a prosocial alternative behaviour. The Heckaman et al. (2000) review also showed that the most common factors shaping and maintaining the inappropriate behaviour of children with conduct problems in the classroom are (a) teacher attention to inappropriate behaviour and (b) learning tasks which are too difficult together with the inadvertent negative reinforcement of escape and avoidance responses.

2.6 Contingency Management Programmes

Contingency management programmes have become the Tier 2/Tier 3 (indicated) treatment of choice for managing conduct problems in the classroom, just as they have become the treatment of choice in for managing conduct problems in the home.

Contingency management operations

Description. The main contingency management operations are (a) the reinforcement operations (the 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 (e.g. the intentional ignoring or withholding of reinforcement following antisocial behaviour) and (c) and the punishment operations (punishment by natural consequences, response cost and/or privilege loss, and time out from reinforcement following antisocial responses). The most commonly used combination is a combination in which (a) the reinforcement for pro-social behaviour is greatly increased, (b) the reinforcement for antisocial behaviour is greatly reduced and (c) the resulting behaviour change is followed by direct teaching of missing social and academic skills while the contingency management scheme remains in force (Lewis, Hudson, Richter & Johnson, 2004).

Resources. Many manualised versions of these procedures exist. See for example: the Incredible Years Teacher Classroom Management Training programme (Webster-Stratton & Reid, 2002), the behaviour plans in Cipani (2007), Vance Hall's *How to Manage Behaviour* series (Hall & Hall, 1998c, 1998d, 1998e), chapters 10 and 11 of Martella, Nelson, & Marchand-Martella (2003), and Chapters 5 & 6 of Rathvon (2008).

Effectiveness. Research into the effectiveness of contingency management operations in managing antisocial behaviour and training pro-social alternatives to antisocial behaviour is extensive. There are some 60 single case experimental analyses of the effects of various contingency management operations in motivating age appropriate levels of attention, task engagement, improved performance levels, compliance and self-control in 8- to 12-year old children with conduct problems in classroom settings. Set out below is a summary of the effects of each of the most commonly used contingency management operations on the behaviour of 8- to 12-year old children with persistent conduct problems.

Differential attention to appropriate (rather than inappropriate) classroom behaviour alone will often motivate a change from antisocial to prosocial classroom behaviour in 8- to 12- year old children with severe and persistent conduct problems (Rasmussen & O'Neil, 2006; Wood et al., 2007). The critical criterion to be met is the ratio of positive to negative teacher attention. A change from high rates of antisocial responses to high rates of prosocial responses is most likely to be observed in cases where the teacher succeeds in increasing attention for appropriate behaviour (and reducing attention to deviant behaviour) to the point where the antisocial child is working in an environment in which he or she is receiving four times as many positive consequences as negative consequences and corrections (Friman, Jones, Smith, Daly, & Larzelere, 1997).

Reinforcement programmes. A second way of motivating the shift from antisocial to prosocial responding is to make access to a preferred activity (or a period of free time in which the student can engage in an activity of their own choosing) contingent upon a defined level of appropriate classroom behaviour. Rapid increases in task engagement and task completion typically occur when these behaviours earn access to desired activities and rapid reductions in disruptive and other forms of antisocial behaviour typically occur when ceasing to engage in these behaviours earns access to desired activities (e.g., Blue, Madsen & Heimberg, 1981; Darveaux, 1984; Epstein, Repp & Cullinan, 1978; Fabiano & Pelham, 2003). Some of these experiments have been undertaken in New Zealand classrooms (e.g., Fry & Thomas, 1976; Seymour & Sanson-Fischer, 1975). In some experiments, access to the reinforcing activity has been provided at home

mediated by a note from school informing the parent that the reward has been earned (e.g., Palcic, Jurbergs & Kelley, 2009; Schumaker, Hovell, & Sherman, 1977).

With contingency management operations, the criterion may be a reduction in antisocial responses or it may be an increase in the amount of work completed or the number of exercises completed correctly. In most cases, reinforcing task completion will be more appropriate because, as task completion increases, inappropriate behaviour almost always decreases (e.g. Ayllon & Roberts, 1974).

Once high levels of task engagement (and low levels of antisocial behaviour) are occurring the contingency can be changed to one where progress towards a *learning goal* earns access to the free time or the preferred activity (e.g., Ayllon, Layman & Kandell, 1975; Hundert & Batstone, 1978; Marholin, McInnes & Heads, 1974; Noell et al., 1998).

Once the student has become engaged in school work, it will usually be possible to transfer fairly rapidly, first to a self-monitoring system and then to a full self-management system (e.g., Hoff & DuPaul, 1998; Kern, Dunlap, Childs, & Clarke, 1994). It is possible for classroom peers to be involved as monitors/recorders (e.g. Dougherty, Fowler & Paine, 1985).

Reinforcement for pro-social behaviour plus sanctions for antisocial behaviour. For older students with entrenched disruptive or antisocial behaviour it will be appropriate to combine reinforcement for appropriate behaviour with sanctions for inappropriate behaviour (e.g. de Martini-Scully, Bray, & Kehle, 2000). There are some 20 single case experimental analyses 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, response cost operations (e.g., Pfiffner, O'Leary, Rosén, & Sanderson, 1985; Ramp, Ulrich & Dulaney, 1971; Witt & Elliot, 1982) and natural consequences (e.g., Lovitt, Lovitt, Eaton & Kirkwood, 1973). As McMahon et al. (2006) have noted, one of the important findings from the classroom contingency management research is that more rapid change from antisocial to pro-social responding occurs when both types of responding have consequences, that is, when pro-social responses result in reinforcement as well as antisocial responses resulting in time out or response cost (Pfiffner & O'Leary, 1987; Rosén, Gabardi, Miller & Miller, 1990; Rosén, O'Leary, Joyce, Conway & Pfiffner, 1984). Time-out tends to become inappropriate after about age 9. This means that some kind of response cost procedure must be introduced as the penalty for antisocial responses at school (independent of any reinforcement contingency which is operating). The simplest procedure is a point loss scheme in which the student loses units of access to a period of free time (e.g. Ramp et al., 1971) or loses units of access to a preferred activity (e.g. Phillips, Wolf, Fixsen & Bailey, 1976). Alternatively, the student may lose access to a desired home activity that day (e.g. Todd, Scott, Bostow & Alexander, 1976).

Contingencies for Learning Academic and Social Skills (CLASS)

Description. CLASS is a Tier 2 (indicated) intervention. Provided suitable modifications are made, the CLASS system (Hops et al., 1978) described in our earlier report on effective interventions for 3 to 7 year olds (Blissett et al., 2009) can be adapted for use at the 8 to 10-year old level. CLASS is a simple contingency management system for the teachers of children with moderate behaviour difficulties. CLASS is introduced by a consultant such as an RTLB over a 5-day period. The CLASS programme typically runs for 30 school days and consists of a green/red cue card, a points system in which the antisocial child can earn a reward to be shared by the whole class, frequent praise for appropriate behaviour, a home reward system, a point response cost system, and time out if needed.

Resources. Resources for the CLASS programme are included in the First Step to Success kit. This includes an *Implementation Guide* (Walker et al., 1997).

Effectiveness. The main evaluation data for the CLASS programme are contained in two randomised control trials reported in Hops et al. (1978). In the first trial, using 11 experimental classrooms and 10 control classrooms, 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. The ES at the end of the programme and at follow-up was 0.5. This programme is currently being trialled with four children with conduct problems in four Christchurch classrooms.

Reprogramming Environmental Contingencies for Effective Social Skills (RECESS)

Description. RECESS is a Tier 2 (indicated) intervention. Provided suitable modifications are made, the RECESS system (Walker, Hops & Greenwood, 1981) described in our earlier report on effective interventions for 3 to 7 year olds (Blissett et al., 2009) can be adapted for use at the 8- to 10-year old level. RECESS consists of four components: (1) training in co-operative social behaviour 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 classroom teacher and duty teachers 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, Ramsey & Gresham, 2004). RECESS is introduced by a consultant such as an RTLB over a 5-day period. Responsibility then passes to the class teacher and duty teachers (with the RTLB in a consultant's role) for 30 school days. Extrinsic rewards are gradually reduced over a 15 day fading period.

Resources. The RECESS programme has been manualised. Materials include a book about the programme (Walker, Hops and Greenwood, 1993), a supervisor's manual (Walker, Hops and Greenwood, 1991a) and a teacher's manual (Walker, Hops and Greenwood, 1991b).

Effectiveness. 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). Prior to treatment, the positive interaction rates of the antisocial children in these samples were similar to those of other children in the class while the negative response rates were 8 times higher than those of normally developing classmates. Evaluation of the programme consists of a single RCT (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 reduction in playground aggression was 0.97.

2.7 Check & Connect

Description. Check & Connect is a Tier 3 intervention for students with conduct problems and students who are at risk of dropping out of school. It involves an advanced form of mentoring by a trained counsellor or social worker who is responsible for acting as a bridge between home and school, monitoring progress on a daily basis, ensuring school attendance, working to increase student engagement with school and providing crisis counselling and personal guidance as required for each of the students in a caseload of up to 25 at-risk students. The "Check" component of Check & Connect involves daily monitoring of student attendance, suspensions, grades, and so on. The "Connect" component is a more intensive component which involves individualised weekly or biweekly CBT "conversations" where problem solving is modelled and practised, conflict-resolution training provided and peer, school and home activities planned and reviewed. Check & Connect staff also oversee transitions from one school to another and may play an advocacy role during school disciplinary proceedings.

Resources. The main resource is the Check & Connect manual (Christenson et al., 2008). Training details and publications can be found on the Check & Connect website at http://ici.umn.edu/checkandconnect/

Effectiveness. Inclusion of Check & Connect as an evidence-based programme for students with persistent conduct problems rests on the results of two evaluations: one at the secondary school level (Sinclair, Christenson, Evelo & Hurley, 1998) and one at the primary school level (Lehr, Sinclair & Christenson, 2004). The secondary school study involved 94 students with severe learning or behavioural disabilities who had participated in 2 years of Check & Connect during the Grades 7 and 8. At the start of Grade 9 (at age 15) half the students were assigned to a further year of Check & Connect and half were returned to normal school conditions. The latter students served as the control group. At the end of Grade 9 significantly more of the Check & Connect students were still at school. They also received significantly lower scores on the problem behaviour scale of Gresham & Elliot's Social Skills Rating System. The primary school study involved 147 students and also resulted in improved school attendance but no measures of problem behaviour were collected.

2.8 Check, Connect and Expect (CCE)

Check, Connect, and Expect is a Tier 2 (indicated) intervention which combines features from three earlier, evidence-based interventions: Check and Connect, the Behaviour Education Programme, and Daily Progress Reports (Cheney et al., 2010).

Description. Check, Connect and Expect is an active supervision programme which uses paraprofessionals (called coaches) who assume responsibility for 20 or so children with conduct problems. Coaches check with each of their CCE students prior to school each day to discuss goals for the day and check that a parent has signed the previous day's daily progress record (DPR), enter data into the CCE web-based recording system for their school, provide scheduled social skills tuition, and complete the afternoon check-out where they check the day's DPR, provide feedback and discuss solutions to any problems encountered during the day. Coaches are trained by a qualified behaviour analyst who is also responsible for ensuring programme fidelity from week to week. Students are identified for CCE using Walker and Severson's (1992) SSBD rating scales. CCE students start at the Basic phase where they carry their DPR all day, present it to the teacher who rates goal achievement at regular intervals during the day, and present it at check in and check out each day. The Basic phase lasts for 8 weeks. Students who meet 75% of their targets on 80% of days graduate to a Self-Monitoring phase. Those who are unable to meet this standard move to a Basic Plus phase where they attend 15 minute social problem solving sessions with 2 or 3 other students. Students who are unable to meet the 75-80% criterion after 8 weeks in the Basic Plus phase are referred for functional assessment and Tier 3 (intensive) intervention.

Effectiveness. Check, Connect and Expect has been evaluated in one large, 2 year, RCT involving 18 Washington primary schools. After 2 years, 60% of CCE students had graduated for meeting the 75-80% criterion plus completion of 4 weeks Self-Monitoring. As a group the CCE graduates moved from the at-risk range to the normal range on the SSRS rating scale (Cheney, Flower & Templeton, 2008; Cheney et al., 2009).

References

Adams, G. L., & Engelmann, S. (1996). *Research on Direct Instruction: 25 years beyond DISTAR.* Seatle, WA: Educational Achievement Systems.

Alberto, P., Heflin, L. J., & Andrews, D. (2002). Use of the timeout ribbon procedure during community-based instruction. *Behavior Modification, 26,* 297-311.

Armendariz, F., & Umbreit, J. (1999). Using active responding to reduce disruptive behavior in a general education classroom. *Journal of Positive Behavior Interventions, 3,* 152-158.
Ayllon, T., Layman, D., & Kandel, H. J. (1975). A behavioral-educational alternative to drug control of hyperactive children. *Journal of Applied Behavior Analysis, 8,* 137-146.
Ayllon, T., & Roberts, M. D. (1974). Eliminating discipline problems by strengthening academic performance. *Journal of Applied Behavior Analysis, 7,* 71-76.
Barrett, S. B., Bradshaw, C. P., Lewis-Palmer, T. (2008). Maryland statewide PBIS initiative: Systems, evaluation, and next steps. *Journal of Positive Behavior Interventions, 10,* 105-114.
Barrish, H. H., Saunders, M., & Wolf, M. M. (1969). Good behavior game: Effects of individual contingencies for group consequences on disruptive behavior in a classroom. *Journal of Applied Behavior Analysis, 2,* 119-124.
Blissett, W., Church, J., Fergusson, D., Lambie, I., Langley, J., Liberty, K., … Werry, J. (2009). *Conduct problems: Effective programmes for programmes for 3- 7 year olds*. Wellington, N. Z.: Ministry of Social Development.
Blonigen, B. A., Harbaugh, W. T., Singell, L. D., Horner, R. H., Irvin, L. K., & Smolkowski, K. S. (2008). Application of economic analysis to School-wide Positive Behavior Support (SWPBS) programs. *Journal of Positive Behavior Interventions, 10,* 5-9.
Blue, S. W., Madsen, C. H., & Heimberg, R. G. (1981). Increasing coping behavior in children with aggressive behavior: Evaluation of the relative efficacy of the components of a treatment package. *Child Behavior Therapy, 3,* 51-60.
Blueprints for Violence Prevention. University of Colorado, Institute of Behavioral Science, Center for the Study and Prevention of Violence. Available from blueprints@colorado.edu.
Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2009). Examining the effects of schoolwide positive behavioral interventions and supports on student outcomes: Results from a randomised controlled effectiveness trial in elementary schools. *Journal of Positive Behavior Interventions, OnlineFirst,* 20 April.
Bradshaw, C. P., Reinke, W. M., Brown, L. D., Bevans, K. B., Leaf, P. J. (2008). Implementation of school-wide positive behavioural interventions and supports (PBIS) in elementary schools: Observations from a randomised trial. *Education and Treatment of Children, 32,* 1-26.
Brestan, E. V. & Eyberg, S. M. (1998). Effective psychosocial treatments of conduct-disordered children and adolescents: 29 years, 82 studies, and 5,272 kids. *Journal of Clinical Child Psychology, 27,* 180-189.
Chandler. L. K., & Dahlquist, C. M. (2010). *Functional assessment: Strategies to prevent and remediate challenging behaviours in school settings.* (3rd ed.). Upper Saddle River, NJ: Pearson Education.
Chapman, D., & Hofweber, C. (2000). Effective behavior support in British Columbia. *Journal of Positive Behavior Interventions, 2,* 235-237.
Cheney, D. A., Flower, A., & Templeton, T. (2008). Applying response to intervention metrics in the social domain for students at risk of developing emotional or behavioral disorders. *The Journal of Special Education, 42,* 108-126.
Cheney, D., Lynass, L., Flower, A., Waugh, M., Iwaszuk, W., Mielenz, C., & Hawken, L. (2010). The Check, Connect and Expect program: A targeted, Tier 2 intervention in the Schoolwide Positive Behaviour Support model. *Preventing School Failure, 54,* 152-158.
Cheney, D. A., Stage, S. A., Hawken, L. S., Lynass, L., Mielenz, C., & Waugh, M. (2009). A 2 year outcome study of the Check, Connect, and Expect intervention for students at risk for severe behavior problems. *Journal of Emotional and Behavioral Disorders, OnlineFirst,* 8 July.
Christenson, S. L., Thurlow, M. L., Sinclair, M. F., Lehr, C. A., Kaibel, C. M., Reschly, A. L., … Pohl, A. (2008). *Check & Connect: A Comprehensive Student Engagement Intervention Manual.* The authors.
Christie, C. A., & Schuster, J. W. (2003). The effects of using response cards on student participation, academic achievement, and on-task behavior during whole-class math instruction. *Journal of Behavioral Education, 12,* 147-165.
Church, R. J. (2003). *The definition, diagnosis and treatment of children and youth with severe behaviour difficulties: A review of research.* Report prepared for the Ministry of Education. Christchurch, N.Z.: University of Canterbury, Education Department.
Cipani, E. (2007). *Classroom management for all teachers: Plans for evidence based-practice.* (3rd ed.). Prentice Hall.

Colvin, G., Kameenui, E. J., & Sugai, G. (1993). Reconceptualizing behavior management and school-wide discipline in general education. *Education and Treatment of Children, 16,* 361-381.

Colvin, G., Martz, G., DeForest, D., & Wilt, J. (1995). Developing a school-wide discipline plan: Addressing all students, all settings and all staff. In A. Defenbaugh, G. Matis, C. M. Neudeck (Eds.), *The Oregon conference monograph: Vol 7* (pp. 43-66). Eugene, Oregon: College of Education.

Colvin, G., Sugai, G., & Kameenui, E. (1993). *Proactive School-wide discipline: Implementation manual.* Eugene, OR: Project PREPARE, Division of Learning and Instructional Leadership, College of Education, University of Oregon.

Colvin, G., Wilbanks, D., Borg, J., Dickey, C., Duncan, M., Gilmore, M., … Shaw, S. (1996). Establishing an effective school-wide discipline plan: Getting all staff on board. In A. Defenbaugh, G. Matis, C. M. Neudeck (Eds.), *The Oregon conference monograph 1995: Vol 8* (pp. 81-93). Eugene, Oregon: College of Education.

Crone, D. A., & Horner, R. H. (2003). *Building positive behavior support systems in schools: Functional behavioural assessment.* New York: Guilford Press.

Darch, C. B., & Thorpe, H. W. (1977). The principal game: A group consequence procedure to increase classroom on-task behavior. *Psychology in the Schools, 14,* 341-347.

Darveaux, D. X. (1984). The Good Behavior Game plus merit: Controlling disruptive behavior and improving student motivation. *School Psychology Review, 13,* 510-514.

Davies, S., & Witte, R. (2000). Self-management and peer-monitoring within a group contingency to decrease uncontrolled verbalizations of children with Attention-Deficit/Hyperactivity Disorder. *Psychology in the Schools, 37,* 135-147.

Davis, L. L., & O'Neill, R. E. (2004). Use of response cards with a group of students with learning disabilities including those for whom English is a second language. *Journal of Applied Behavior Analysis, 37,* 219-222.

De Martini-Scully, D., Bray, M. A., & Kehle, T. J. (2000). A packaged intervention to reduce disruptive behaviours in general education students. *Psychology in the Schools, 37,* 149-156.

Dougherty, B. S., Fowler, S. A., & Paine, S. C. (1985). The use of peer monitors to reduce negative interaction during recess. *Journal of Applied Behavior Analysis, 18,* 141-153.

Dunlap, G., Carr, E. G., Horner, R. H., Zarcone, J. R., & Schwartz, I. (2008). Positive behavior support and applied behavior analysis: A familial alliance. *Behavior Modification, 32,* 682-698.

Eber, L. (2005). *Illinois PBIS evaluation report*. La Grange Park: Illinois State Board of Education, PBIS/EBD Network.

Embry, D., Straatemeier, G., Lauger, K., Richardson, C. (2003a). *The PAX Good Behavior Game schoolwide implementation guide*. Center City, MN: Hazelden Publishing.

Embry, D., Straatemeier, G., Lauger, K., Richardson, C. (2003b). *PAX Good Behavior teacher's guide*. Center City, MN: Hazelden Publishing

Epstein, M. H., Repp, A. C., & Cullinan, D. (1978). Decreasing obscene language of behaviorally disordered children through the use of a DRL schedule. *Psychology in the Schools, 15,* 419-423.

Eyberg, S. M., Nelson, M. M., & Boggs, S. R. (2008). Evidence based psychosocial treatments for children and adolescents with disruptive behavior. *Journal of Cinical Child and Adolescent Psychology, 37,* 215-237.

Fabiano, G. A., & Pelham Jr., W. E. (2003). Improving effectiveness of behavioral classroom interventions for Attention-Deficit/Hyperactivity Disorder: A case study. *Journal of Emotional and Behavioral Disorders, 11,* 122-128.

Fantuzzo, J. W., King, J. A., & Heller, L. R. (1992). Effects of reciprocal peer tutoring on mathematics and school adjustment: A component analysis. *Journal of Educational Psychology, 84,* 331-339.

Friman, P. C., Jones, M., Smith, G., Daly, D. L., & Larzelere, R. (1997). Decreasing disruptive behavior by adolescent boys in residential care by increasing their positive to negative interactional ratios. *Behavior Modification, 21,* 470-486.

Fry, L., & Thomas, J. (1976). A behaviour modification approach to rehabilitating behaviourally disordered children in an adjustment class. *New Zealand Journal of Educational Studies, 11,* 124-131.

Fuchs, L. S., & Fuchs, D. (1995). Acquisition and transfer effects of classwide peer-assisted learning strategies in mathematics. *School Psychology Review, 24,* 604-620.

Ginsburg-Block, M. D., Rohrbeck, C. A., & Fantuzzo, J. W. (2006). A meta-analytic review of social, self-concept, and behavioral outcomes of peer-assisted learning. *Journal of Educational Psychology, 98,* 732-749.

Gottfredson, D. C. (2001). *Schools and delinquency.* Cambridge: Cambridge University Press.

Greenwood, C. R., Delquadri, J. C., & Hall, R. V. (1989). Longitudinal effects of classwide peer tutoring. *Journal of Educational Psychology, 81,* 371-383.

Gresham, F. M., & Gresham, G. N. (1982). Interdependent, dependent, and independent group contingencies for controlling disruptive behavior. *The Journal of Special Education, 16,* 101-110.

Hall, R. V., & Hall, M. C. (1998a) *How to use systematic attention and approval.* Austin, TX: Pro-Ed.

Hall, R. V., & Hall, M. C. (1998b) *How to use planned ignoring (Extinction).* Austin, TX: Pro-Ed.

Hall, R. V., & Hall, M. C. (1998c) *How to select reinforcers.* Austin, TX: Pro-Ed.

Hall, R. V., & Hall, M. C. (1998d) *How to negotiate a behavioural contract.* Austin, TX: Pro-Ed.

Hall, R. V., & Hall, M. C. (1998e) *How to use time-out.* Austin, TX: Pro-Ed.

Hall, R. V., Lund, D., & Jackson, D. (1968). Effects of teacher attention on study behavior. *Journal of Applied Behavior Analysis, 1,* 1-12.

Hattie, J. A. C. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement.* London: Routledge.

Haydon, T., Mancil, R. G., & Van Loan, C. (2009). Using opportunities to respond in a general education classroom: A case study. *Education and Treatment of Children, 32,* 267-278.

Heckaman, K., Conroy, M., Fox, J., & Chait, A. (2000). Functional assessment-based intervention research on students with or at risk for emotional and behavioural disorders in school settings. *Behavioral Disorders, 25,* 196-210.

Heller, L. R., & Fantuzzo, J. W. (1993). Reciprocal peer tutoring and parent partnership: Does parent involvement make a difference? *School Psychology review, 22,* 517-534.

Hoff, K. E., & DuPaul, G. J. (1998). Reducing disruptive behavior in general education classrooms: The use of self-management strategies. *School Psychology Review, 27,* 290-303.

Hops, H., Walker, H. M., Fleischman, D. H., Nagoshi, J. T., Omura, R.T., Skindrud, K., & Taylor, J. (1978). CLASS: A standardized in-class program for acting-out children. II. Field test evaluations. *Journal of Educational Psychology, 70,* 636-644.

Horner, R. H., Sugai, G., Todd, A. & Lewis-Palmer, T. (2005). School-wide positive behavior support: An alternative approach to discipline in schools. In L. Bambara & L. Kern (Eds.), *Individualized support for students with problem behaviors: Designing positive behavior plans* (pp. 359-390). New York: Guilford Press.

Horner, R. H., Todd, A. W., Lewis-Palmer, T., Irvin, L. K., Sugai, G., & Boland, J. B. (2004). The School-Wide Evaluation Tool (SET): A research instrument for assessing School-Wide Positive Behavior Support. *Journal of Positive Behavior Interventions, 6,* 3-12.

Hundert, J., & Batstone, D. (1978). A practical procedure to maintain pupils' accurate self-rating in a classroom token program. *Behavior Modification, 2,* 93-110.

Johnson, M. R., Turner, P. F., & Konarski, E. A. (1978). The “good behavior game”: A systematic replication in two unruly transitional classrooms. *Education and Treatment of Children, 1,* 25-33.

Kern, L., Dunlap, G., Childs, K. E., & Clarke, S. (1994). Use of a classwide self-management program to improve the behavior of students with emotional and behavioral disorders. *Education and Treatment of Children, 17,* 445-458.

Kincaid, D., Childs, K., Blase, K. A., & Wallace, F. (2007). Identifying barriers and facilitators in implementing Schoolwide Positive Behavior Support. *Journal of Positive Behavior Interventions. 9,* 174-184.

Lambert, M.C. (2002). The effects of increasing active student responding with response cards during mathematics instruction on the disruptive behavior of fourth-grade urban learners (Doctoral dissertation, The Ohio State University, Columbus.

Lassen, S. R., Steele, M. M., & Sailor, W. (2006). The relationship of school-wide Positive Behavior Support to academic achievement in an urban middle school. *Psychology in the Schools, 43,* 701-712.

Lehr, C. A., Sinclair, M. F., & Christenson, S. L. (2004). Addressing student engagement and truancy preventionduring the elementary school years: A Replication study of the Check and Connect Model. *Journal of Education for Students Placed at Risk, 9,* 279-301.

Lewis, T. J., Hudson, S., Richter, M., & Johnson, N. (2004). Scientifically supported practices in emotional and behavioural disorders: A proposed approach and brief review of current practices. *Behavioral Disorders, 29,* 247-259.

Lewis, T. J., Powers, L. J., Kelk, M. J., & Newcomer, L. L. (2002). Reducing problem behaviors in the playground: An investigation of the application of school wide positive behavior supports. *Psychology in the Schools, 39,* 181-190.

Lovitt, T. C., Lovitt, A. O., Eaton, M. D., & Kirkwood, M. (1973). The deceleration of inappropriate comments by a natural consequence. *Journal of School Psychology, 11,* 148-154.

Luiselli, J. K., Putnam, R. F., Handler, M. W., & Feinberg, A. B. (2005). Whole-school Positive Behavior Support: Effects on student discipline problems and academic performance. *Educational Psychology, 25,* 183-198.

Madsen, C. H., Becker, W. C., & Thomas, D. R. (1968). Rules, praise and ignoring: Elements of elementary classroom control. *Journal of Applied Behavior Analysis, 1,* 139-150.

Madsen, C. H., Madsen, C. K., Saudergas, R. A., Hammond, W. R., Smith, J. B., & Edgar, D. E. (1970). Classroom raid (rules, approval, ignore, disapproval): A cooperative approach for professionals and volunteers. *Journal of School Psychology, 8,* 180-185.

Marholin II, D., McInnis, E. T., & Heads, T. B. (1974). Effect of two free-time reinforcement procedures on academic performance in a class of behavior problem children. *Journal of Educational Psychology, 66,* 872-879.

Martella, R. C., Nelson, J. R., & Marchand-Martella, N. E. (2003) *Managing disruptive behavior in the schools: A schoolwide, classroom and individualised social learning approach.* Boston: Pearson Education.

Mass-Galloway, R. L., Panyan, M. V., Smith, C. R., & Wessendorf, S. (2008). Systems change with School-Wide Positive Behavior Supports. *Journal of Positive Behavior Interventions, 10,* 129-135.

McMahon, R. J., Wells, K. C., & Kotler, J. S. (2006). Conduct problems. In E. J. Mash & R. A. Barkley (Eds.), *Treatment of Childhood Disorders* (pp 137-268). New York: Guilford Press.

Metzler, C. W., Biglan, A., Rusby, J. C., & Sprague, J. R. (2001). Evaluation of a comprehensive behavior management program to improve school-wide positive behavior support. *Education and Treatment of Children, 24*, 448-479.

Musser, E. H., Bray, M. A., Kehle, T. J., & Jenson, W. R. (2001). Reducing the disruptive behaviors in students with serious emotional disturbance. *School Psychology Review, 30,* 294-304.

Mytton, J., DiGuiseppi, C., Gough, D, Taylor, R., & Logan, S. (2007). School-based secondary prevention programmes for preventing violence (Review). *Evidence-Based Child Health, 2,* 814-891. DOI: 10.1002/ebch.127.

Nelson, J. R. (1996). Designing schools to meet the needs of students who exhibit disruptive behavior. *Journal of Emotional and Behavioral Disorders, 4,* 147-161.

Nersesian, M., Todd, A. W., Lehmann, J., & Watson, J. (2000). School-wide behavior support through district-level system change. *Journal of Positive Behavior Interventions, 2,* 244-248.

Noell, G. H., Gansle, K. A., Witt, J. C., Whitmarsh, E. L., Freeland, J. T., LaFleur, L. H., … Northup, J. (1998). Effects of contingent reward and instruction on oral reading performance at differing levels of difficulty. *Journal of Applied Behavior Analysis, 31,* 659-663.

Palcic, J. L., Jurbergs, N., & Kelley, M. L. (2009). A comparison of teacher and parent delivered consequences: Improving classroom behavior in low-income children with ADHD. *Child and Family Behavior Therapy, 31,* 117-133.

Pfiffner, L. J., & O'Leary, S. G. (1987). The efficacy of all-positive management as a function of the prior use of negative consequences. *Journal of Applied Behavior Analysis, 20,* 265-271.

Pfiffner, L. J., O'Leary, S. G., Rosén, L. A., & Sanderson, W. C. (1985). A comparison of the effects of continuous and intermittent response cost and reprimands in the classroom. *Journal of Clinical Child Psychology, 14,* 348-352.

Phillips, D., & Christie, F. (1986). Behaviour management in a secondary school classroom: Playing the game. *Maladjustment and Therapeutic Education, 4,* 47-53.

Phillips, E. L., Wolf, M. M., Fixsen, D. L., & Bailey, J. S. (1976). The Achievement Place Model: A community-based, family-style, behavior modification program for predelinquents. In E. Ribes-

Inesta & A. Bandura, (Eds.), *Analysis of delinquency and aggression,* (pp. 171-202), Hillsdale, NJ: Lawrence Erlbaum.

Pierce, C. D., Reid, R., & Epstein, M. H. (2004). Teacher-mediated interventions for children with EBD and their academic outcomes: A review. *Remedial and Special Education, 25,* 175-188.

Ramp, E., Ulrich, R., & Dulaney, S. (1971). Delayed timeout as a procedure for reducing disruptive classroom behavior: A case study. *Journal of Applied Behavior Analysis, 4,* 235-239.

Randolf, J. J. (2007). Meta-analysis of the research on response cards: Effects on test achievement, quiz achievement, participation, and off-task behavior. *Journal of Positive Behavior Interventions, 9,* 113-128.

Rasmussen, K., & O'Neill, R. E. (2006). The effects of fixed-time reinforcement schedules on problem behavior of children with emotional and behavioral disorders in a day-treatment classroom setting. *Journal of Applied Behavior Analysis, 39,* 453-457.

Rathvon, N. (2008). *Effective school interventions: Evidence-based strategies for improving student outcomes.* New York: Guilford Press.

Reddy, L. A., Newman, E., de Thomas, C. A., & Chun, V. (2009). Effectiveness of school-based prevention and intervention programs for children and adolescents with emotional disturbance: A meta-analysis. *Journal of School Psychology, 47,* 77-99.

Rohrbeck, C. A., Ginsburg-Block, M. D., Fantuzzo, J. W., & Miller, T. R. (2003). Peer-assisted learning interventions with elementary school students: A meta-analytic review. *Journal of Educational Psychology, 95,* 240-257.

Rosén, L. A., Gabardi, L., Miller, C. D., & Miller, L. (1990). Home-based treatment of disruptive junior high school students: An analysis of the differential effects of positive and negative consequences. *Behavioral Disorders, 15,* 227-232.

Rosen, L. A., O'Leary, S. G., Joyce, S. A., Conway, G., & Pfiffner, L. J. (1984). The importance of prudent negative consequences for maintaining the appropriate behavior of hyperactive students. *Journal of Abnormal Child Psychology, 12,* 581-604.

Ryan, J. B., Reid, R., & Epstein, M. H. (2004). Peer-mediated intervention studies on academic achievement for students with EBD: A review. *Remedial and Special Education, 25,* 330-341.

Sailor, W., Barrett, S., Dunlap, G., Massanari, C., Putnam, R., Sugai, G., … Algozzine, R. (2010). *School-wide positive behavior support: Implementer's blueprint and self-assessment.* Eugene, OR: University of Oregon.

Salend, S. J., Reynolds, C. J., & Coyle, E. M. (1989). Individualizing the good behavior game across type and frequency of behavior with emotionally disturbed adolescents. *Behavior Modification, 13,* 108-126.

Schumaker, J. B., Hovell, M. F., & Sherman, J. A. (1977). An analysis of daily report cards and parent-managed privileges in the improvement of adolescents' classroom performance. *Journal of Applied Behavior Analysis, 10,* 449-464.

Scott, T., M., Bucalos, A., Liaupsin, C., Nelson, C. M., Jolivette K., & DeShea, L. (2004). Using functional behavior assessment in general education settings: Making a case for effectiveness and efficiency. *Behavioral Disorders, 29,* 189-201.

Seymour, F. W., & Sanson-Fischer, R. W. (1975). Effects of teacher attention on the classroom behaviour of two delinquent girls within a token programme. *New Zealand Journal of Educational Studies, 10,* 111-119.

Simonsen, B., Britton, L., & Young, D. (2009). School-Wide Positive Behavior Support in an alternative school setting: A case study. *Journal of Positive Behaviour Interventions,* OnlineFirst, 20 January.

Sinclair, M. F., Christenson, S. L., Evelo, D. L., & Hurley, C. M. (1998). Dropout prevention for youth with disabilities: Efficacy of a sustained school engagement procedure. *Exceptional Children, 65,* 7-21.

Sprague, J., Walker, H., Golly, A., White, A., Myers, D. R., & Shannon, T. (2001). Translating research into effective practice: The effects of a universal staff and student intervention on indicators of discipline and school safety. *Education & Treatment of Children, 24,* 495-511.

Stage, S. A., & Quiroz, D. R. (1997). A meta-analysis of interventions to decrease disruptive behaviour in public education settings. *School Psychology Review, 26,* 333-368.

Sugai, G., & Horner, R. (2006). *School-wide Positive Behavior Support: Basics.* Eugene, OR: Center on Positive Behavioural Interventions and Supports: University of Connecticut and University of Oregon.

Sutherland, K. S., Alder, N., & Gunter, P. L. (2003). The effect of varying rates of opportunities to respond to academic requests on the classroom behavior of students with EBD. *Journal of Emotional and Behavioral Disorders, 11,* 239-248.

Sutherland, K. S., & Wehby, J. H. (2001). Exploring the relationship between increased opportunities to respond to academic requests and the academic and behavioral outcomes of students with EDB: A review. *Remedial and Special Education, 22,* 113-121.

Sutherland, K. S., Wehby, J. H., & Copeland, S. R. (2000). Effect of varying rates of behavior-specific praise on the on-task behavior of students with EBD. *Journal of Emotional and Behavioral Disorders, 8,* 2-8, 26.

Taylor-Greene, S., Brown, D., Nelson, L., Longton, J., Gassman, T., Cohen, J., … Hall, S. (1997). School-wide behavioral support: Starting the year off right. *Journal of Behavioral Education, 7,* 99-112.

Taylor-Greene, S. J., & Kartub, D. T. (2000). Durable implementation of school-wide behavior support: The High Five Programme. *Journal of Positive Behavior Interventions, 2,* 233-235.

Thomas, D. R., Becker, W. C., & Armstrong, M. (1968). Production and elimination of disruptive classroom behavior by systematically varying teacher's behavior. *Journal of Applied Behavior Analysis, 1,* 35-45.

Thomas, J. D., Pohl, F., Presland, I., & Glynn, E. L. (1977). A behaviour analysis approach to guidance. *New Zealand Journal of Educational Studies, 12,* 17-28.

Tincani, M., & Crozier, S. (2007). Comparing brief and extended wait-time during small group instruction for children with challenging behavior. *Journal of Behavioral Education, 16,* 355-367.

Tingstrom, D. H., Sterling-Turner, H. E., & Wilczynski, S. M. (2006). The Good Behavior Game: 1969-2002. *Behavior Modification, 30,* 225-253.

Todd, D. D., Scott, R. B., Bostow, D. E., & Alexander, S. B. (1976). Modification of the excessive inappropriate behavior of two elementary students using home-based consequences and daily report-card procedures. *Journal of Applied Behavior Analysis, 9,* 106.

Umbreit, J., Ferro, J., Liaupsin, C. J., & Lane, K. L. (2007). *Functional behavioural assessment and function-based intervention: An effective, practical approach.* Upper Saddle river, NJ: Pearson Education.

Vannest, K. J., Harrison, J. R., Temple-Harvey, K., Ramsey, L, & Parker, R. I. (2010). Improvement rate differences of academic interventions for students with emotional and behavioural disorders. *Remedial and Special Education OnlineFirst,* 26 February.

Walker, B., Cheney, D., & Stage, S. (2009). The validity and reliability of the Self-Assessment and Programme Review: Assessing school progress in Schoolwide Positive Behaviour Support. *Journal of Positive Behavior Interventions, 11,* 94-109.

Walker, H. M., Hops, H., & Greenwood, C. R. (1981). RECESS: Research and development of a behavior management package for remediating social aggression in the school setting. In P. S. Strain (Ed.), *The utilization of classroom peers as behavior change agents* (pp. 261-303). New York: Plenum Press.

Walker, H. M., Hops, H., & Greenwood, C. R. (1991a). *Reprogramming environmental contingencies for effective social skills (RECESS)*: *Supervisor's Manual.* Seattle, WA: Educational Achievement Systems.

Walker, H. M., Hops, H., & Greenwood, C. R. (1991b). *Reprogramming environmental contingencies for effective social skills (RECESS)*: *Teacher's Manual.* Seattle, WA: Educational Achievement Systems.

Walker, H. M., Hops, H., & Greenwood, C. R. (1993). *RECESS: A program for reducing negative-aggressive behavior*. Seattle, WA: Educational Achievement Systems.

Walker, H. M., Ramsey, E., & Gresham, F. M. (2004). *Antisocial behavior in school: Evidence-based practices.* Belmont, CA: Thomson/Wadsworth.

Walker, H. M., & Severson, H. H. (1992). *Systematic Screening for behavior disorders: Users guide and administration manual.* Longmont, CO: Sopris West.

Walker, H. M., Stiller, B., Golly, A., Kavanagh, K., Severson, H. & Feil, E. G. (1997). *First Step to Success. Helping young children overcome antisocial behavior: Implementation guide.* Longmont, CO: Sopris West.

Ward, M. H., & Baker, B. L. (1968). Reinforcement therapy in the classroom. *Journal of Applied Behavior Analysis, 1,* 323-328.

Webster-Stratton, C., & Reid, J. M. (2002). *The Incredible Years Classroom Management Teacher*

Training Program: Content, methods, and process. Incredible Years Teacher Training. Incredible Years, University of Washington, Seattle.

Weissenburger, F. E., & Loney, J. (1977). Hyperkinesis in the classroom: If cerebral stimulants are the last resort, what is the first resort? *Journal of Learning Disabilities, 10,* 339-348.

Weldhall, K., & Merrett, F. (1985). The behavioural approach to teaching package for use in primary and middle schools (BATPACK). Birmingham: Positive Products.

West, R. P., & Sloane, H. N. (1986). Teacher presentation rate and point delivery rate: Effects on classroom disruption, performance accuracy, and response rate. *Behavior Modification, 10,* 267-286.

Wilson, D. B., Gottfredson, D. C., & Najaka, S. S. (2001). School based prevention of problem behaviours: A meta-analysis: *Journal of Quantitative Criminology, 17,* 247-272.

Wilson, S. J., Lipsey, M. W. & Derzon, J. H. (2003). The effects of school-based intervention programmes on aggressive behavior: A meta-analysis. *Journal of Consulting and Clinical Psychology, 71,* 136-149.

Witt, J. C., & Elliott, S. N. (1982). The response cost lottery: A time efficient and effective classroom intervention. *Journal of School Psychology, 20,* 155-161.

Wood, B. K., Umbreit, J., Liaupsin, C. J., & Gresham, F. M. (2007). A treatment integrity analysis of function-based intervention. *Education and Treatment of Children, 30,* 105-120.

Part 3
Social Skills Training for Children Aged 8 to 12 Years with Persistent Conduct Problems

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An adequate level of interpersonal skill is necessary for effective functioning in all social settings. "The degree to which students are able to establish and maintain satisfactory interpersonal relationships, gain peer acceptance and maintain friendships . . . predicts adequate long-term psychological and social adjustment" (Gresham, Sugai, & Horner, 2001). Failure to acquire age appropriate interpersonal skills is one of the defining characteristics of children and youth with persistent conduct problems (Church, 2003; Kavale, Mathur, Forness, Rutherford & Quinn, 1997). It is not surprising, therefore, to find that social skills training has become "a frontline treatment approach for aggressive children" (Nangle, Erdley, Carpenter & Newman, 2002, p. 169) and that it is widely employed as an intervention for primary school children with persistent conduct problems.

What is Social Skills Training (SST)?

The aim of most social skills training (SST) is to develop a level of social competence sufficient to ensure "the ability to initiate and to maintain positive social relationships with others, to establish positive peer acceptance and satisfactory school adjustment, and to cope effectively and adaptively with the larger social environment" (Kavale et al., 1997, p. 2). This includes the ability to interpret accurately the social cues provided by other people. SST is also referred to as "interpersonal skills training" and as "cognitive behaviour therapy". SST curricula usually involve instruction in some combination of social skills, social problem solving skills, cognitive restructuring, anger management skills and/or assertiveness skills.

There are many manualised social skills training programmes. The following five widely used programmes illustrate the range currently available.

- the *Anger Coping Programme* (Lochman, Wells, & Lenhart, 2008). This is an indicated programme designed to be taught to groups of 4 to 6, one of whom is a child with conduct problems. It consists of 33 45-minute lessons designed to build goal setting skills, study skills, awareness of feelings, restructured attributions, anger management skills, social skills, peer group entry skills, and social problem solving skills. Most of the evaluations are of an earlier 18 lesson version of this programme.
- *Problem Solving Skills Training (PSST)* (Kazdin, Esveldt-Dawson, French & Unis, 1987). This is an indicated intervention which is delivered by a qualified therapist to the child with conduct problems. The original version consisted of 20 45-minute sessions covering such things as social problem solving skills and relationship skills. The intervention is individualised, and this enables the therapist to address social learning problems which are unique to particular children.
- *Promoting Alternative Thinking Strategies (PATHS)* (Kam, Greenberg & Kusché, 2004). PATHS is the social skills programme used in the Fast Track trial. It is a Tier 1 (universal level) classroom programme consisting of 131 lessons designed to build competence in self-control, positive self-esteem, emotional awareness, and interpersonal problem-solving skills.
- *Second Step Violence Prevention Curriculum.* (Frey, Hirschstein, & Guzzo, 2000). Second Step is a Tier 1 (universal level) programme which consists of 30 lessons designed to teach anger management, empathy and impulse control in the classroom. A grade specific curriculum has been developed for children at each grade level.

- *Skillstreaming the Elementary School Child* (McGinnis & Goldstein, 1997). This is a universal level programme which covers 60 social skills across five domains: classroom survival skills, friendship-making skills, coping with feelings, alternatives to aggression, and dealing with stress. There is also a companion volume of lesson plans and activities.

Reviews of the Effectiveness of Social Skills Training

More than a dozen reviews of the SST research have been published since 1990 and at least six of these are meta-analyses (Maag, 2006). Some of these reviews (e.g. Ang & Hughes, 2001; Mytton, DiGuiseppi, Gough, Taylor, & Logan, 2007; Wilson & Lipsey, 2006) do not distinguish between pre-school, primary school, and secondary school aged students. Others fail to distinguish between studies involving SST alone and studies which involved both SST and parent management training (e.g. Ang & Hughes, 2001). There appear to be three meta-analyses which give separate effect sizes for primary school and secondary school aged students with conduct problems (Lösel & Beelmann, 2003; Mathur, Kavale, Quinn, Forness & Rutherford, 1998; Quinn, Kavale, Mathur, Rutherford & Forness, 1999). Mathur et al. (1998) is a meta-analysis of 65 single case evaluations of the effects of SST on children referred for high rates of disruptive behaviour. Earlier and later versions of all three of these reviews exist.

Lösel & Beelmann (2003) report a mean weighted effect size of .39 at post test and .20 at follow up for 50 SST evaluation studies involving 7- to 12-year old children with conduct problems. Quinn et al. (1999) report an average effect size of .21 for 16 studies of SST with children with behaviour disorders who were aged 10 or less. The Mathur et al. (1998) analysis of 65 single case evaluations of social skills training reported a mean percentage of non-overlapping data points of 64% for children of primary school age with behaviour disorders. A PND of 50% represents no effect, so a PND of 64% is a small effect.

Following a review of 15 stringently selected RCTs measuring the effects of SST on primary school children with persistent conduct problems, Taylor, Eddy and Biglan (1999, p.175) concluded that "interpersonal skills training programs have relatively limited short term evidence supporting their efficacy and virtually no evidence that these gains are maintained over the long term." Taylor et al. identified Kazdin's PSST programme as the intervention which produced the strongest effects but noted that this is delivered one-to-one by a trained therapist who also works to overcome the child's specific social learning difficulties and that the programme runs for some 20 to 25 sessions. "However, even with this intensive intervention the majority of children receiving interpersonal skills training as the only intervention remained in the clinical range after treatment was finished, suggesting that even this . . . program is typically not sufficient treatment for children with clinical levels of conduct problems" (Taylor et al., 1999, p. 175).

Conclusions

The present consensus is that SST has not produced particularly large, socially important, long-term or generalizable changes in the social competence of students with persistent conduct problems and that researchers have not yet been able to arrive at a best practice model for the identification, measurement, training, generalization, and maintenance of social skills with such students. (e.g. Bullis, Walker, & Sprague, 2001; Chen, 2006; Gresham, 1997, 1998; Gresham, Sugai & Horner, 2001; Spence, 2003; Taylor et al., 1999). For this reason, there are no social skills training programmes which can be recommended for widespread adoption at the 8- to 12-year old level at this time.

SST studies to date have varied widely with respect to the criteria used to select experimental subjects, the skills which have been trained, and the type and intensity of the training provided. Most have also failed to match the content of the social skills training to the social skills deficits of each participating child. A number of writers (e.g. Bullis, Walker, & Sprague, 2001; Gresham, 1997; Gresham, Sugai & Horner, 2001; Spence, 2003) have argued that, if SST is to be effective, it will need to target those skills which the child still needs to learn and teachers, parents and peers will all need to be recruited to model, prompt, and reinforce appropriate social responding across a

range of settings for adequate periods of time – recognising that social skills are acquired and polished during hundreds of thousands of social interactions during a lengthy childhood.

In SST with antisocial children, pre-existing antisocial behaviours (such as grabbing) compete strongly with newly acquired social skills (such as asking nicely and waiting). This is because the antisocial response generates reinforcement (pays off) more quickly than the pro-social alternative. To motivate continued use of a newly acquired social response requires parents and teachers to change the child's social learning contingencies so that the pro-social response generates more reinforcement or more immediate reinforcement than the antisocial response previously used by the child (Gresham et al., 2001; Spence, 2003). It is for this reason that the contingency management programmes (with their incidental teaching of pro-social skills) tend to have strong effects while the social skills training programmes (without any changes to the contingencies operating in the child's social environment) tend to have weak effects.

References

Ang, R., & Hughes, J. (2001). Differential effects of skills training with antisocial youth based on group composition: A meta-analytic investigation. *School Psychology Review, 31,* 164-185.

Bullis, M., Walker, H. M., & Sprague, J. R. (2001). A promise unfulfilled: Social Skills training with at-risk and antisocial children and youth. *Exceptionality, 9,* 67-90.

Chen, K. (2006). Social skills interventions for students with emotional/behavioural disorders: A literature review from the American Perspective. *Educational Research and Reviews, 1,* 143-149.

Church, R. J. (2003). *The definition, diagnosis and treatment of children and youth with severe behaviour difficulties: A review of research.* Christchurch: University of Canterbury, Education Department.

Frey, K. S., Hirschstein, M. K., & Guzzo, B. (2000). Second Step: Preventing aggression by promoting social competence. *Journal of Emotional and Behavioral Disorders*, 8, 102–112.

Gresham, F. M. (1997). Social competence and children with behavior disorders: Where we've been, where we are, and where we should be going. *Education and Treatment of Children, 20*, 233-250.

Gresham F. M. (1998). Social skills training: Should we raze, remodel, or rebuild? *Behavioral Disorders, 24,* 19-25.

Gresham, F. M., Sugai, G., & Horner, R. H. (2001). Interpreting outcomes of social skills training for students with high-incidence disabilities. *Exceptional Children, 67,* 331-344.

Kam, C., Greenberg, M. T., & Kusché, C. A. (2004). Sustained effects of the PATHS curriculum on the social and psychological adjustment of children in special education. *Journal of Emotional and Behavioral Disorders 12:* 66-78.

Kazdin, A. E., Esveldt-Dawson, K., French, N. H., & Unis, A. S. (1987). Problem solving skills training and relationship therapy in the treatment of antisocial child behavior. *Journal of Consulting and Clinical Psychology, 55,* 76-85.

Kavale, K. A., Mathur, S. R., Forness, S. R., Rutherford, R. B., & Quinn, M. M. (1997) Effectiveness of social skills training for students with behavior disorders: A meta-analysis. *Advances in Learning and Behavioral Disabilities, 11,* 1-26.

Lochman, J. E., Wells, K., & Lenhart, L. (2008). *Coping Power: Child group facilitator's guide.* New York**:** Oxford University Press

Losel, F., & Beelman, A. (2003). Effects of child skills training in preventing antisocial behavior: A systematic review of randomized evaluations. *Annals AAPSS, 857,* 84-109.

Maag, J. W. (2006). Social skills training for students with emotional and behavioral disorders: A review of reviews. *Behavioral Disorders, 32,* 5-17.

McGinnis, E., & Goldstein, A. P. (1997). *Skillstreaming the elementary school child: New strategies and perspectives for teaching prosocial skills.* (Revised Ed.) Champaign, IL: Research Press.

Mathur, S. R., Kavale, K.S., Quinn, M. M., Forness, S. R., & Rutherford, R. B. (1998). Social skills interventions with students with emotional and behavioral problems: A quantitative synthesis of single-subject research. *Behavioral Disorders, 23*, 193-201.

Mytton, J., DiGuiseppi, C., Gough, D., Taylor, R., & Logan, S. (2007). School based secondary prevention programmes for preventing violence (Review). *Evidence-Based Child Health: A Cochrane Review Journal, 2,* 814-891.

Nangle, D. W., Erdley, C. A., Carpenter, E. M., & Newman, J. E. (2002). Social skills training for aggressive children and adolescents: A developmental-clinical integration. *Aggression and Violent Behavior, 7,* 169-199.

Quinn, M. M., Kavale, K. A., Mathur, S. R., Rutherford, R. B., & Forness, S. R. (1999). A meta-analysis of social skill interventions for students with emotional or behavioral disorders. *Journal of Emotional and Behavioural Disorders, 7,* 54-64.

Spence, S. (2003). Social skills training with children and young people: Theory, evidence and practice. *Child and Adolescent Mental Health, 8,* 84-96.

Taylor, T. K., Eddy, J. M., & Biglan, A. (1999). Interpersonal skills training to reduce aggressive and delinquent behavior: Limited evidence and the need for an evidence-based system of care. *Clinical Child and Family Psychology Review, 2,* 169-182.

Wilson, S. J., & Lipsey, M. W. (2006). *The effects of school-based social information processing interventions on aggressive behavior: Part 2: Selected/indicated pull-out programs. Campbell Collaboration Systematic Review.* Center for Evaluation Research and Methodology, Vanderbuilt Institute for Public Policy Studies.

Part 4
Multimodal Interventions for Children Aged 8 to 12 Years with Persistent Conduct Problems

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The search for effective treatments for older children with persistent conduct problems has led many investigators to experiment with multimodal treatment programmes. Multimodal programmes are interventions which combine two of more of the following elements: (a) parent management training, (b) a targeted classroom-based intervention (together with any teacher mentoring which may be required) and/or (c) social skills type training for the young person with conduct problems. This section reviews those multimodal treatment programmes which have been evaluated and which qualify as evidence-based.

4.1 Linking the Interests of Families and Teachers (LIFT)

Linking the Interests of Families and Teachers is a Tier 1 (universal) intervention developed by the Oregon Social Learning team. Its aim is to prevent the development of antisocial behaviour by making parent management training available to the parents of all the children in a school, by making social learning instruction and practice available to all students, and by making a behaviour management programme available to all their teachers.

Description. LIFT consists of three components: a home, a classroom and a playground component. The *home intervention* is a shortened version of Oregon type parent management training delivered in the form of six, weekly, 1.5 hour group training sessions for the caregivers of 10 to 15 children. Free child care is provided. These sessions focus on positive reinforcement, discipline, monitoring, problem solving, and keeping in touch with teachers. Keeping in touch is facilitated by the installation in each classroom of a telephone and answering machine on which teachers and parents can leave messages and progress reports for each other. The *classroom intervention* consists of 20 30-minute lessons, held twice weekly, on listening skills, emotion recognition and emotion management, group co-operation skills, giving and receiving compliments, problem solving skills and other peer relationship skills. The *playground intervention* is a version of the Good Behaviour Game reviewed in Part 2 above. It involves a group contingency in which the children earn tokens for positive behaviours both during structured group activities and during recess. When the class as a whole has earned a certain number of tokens the entire class earns a special privilege. If a child is observed engaging in a negative manner, the child's group loses a point from a pre-set number of “good faith” points awarded at the start of the school day. If a group manages to retain a predetermined percentage of their points over several recess periods each member earns a small prize.

Resources. LIFT is a research programme and its resources have not been made generally available at the present time.

Effectiveness. LIFT appears to be the only multimodal preventive intervention delivered to a general population of students and their families which has been subject to rigorous evaluation to date. The evaluation is a single RCT which takes the form of long term follow-up study of 670 1st graders and 5th graders (10 year olds) in 32 classrooms in 6 prevention schools plus 6 control schools. Evaluation data include playground observations and direct observations of parent-child interaction. At the end of the first year, the LIFT children were less aggressive in the playground than controls, were perceived more positively by their teachers and parents and behaved less aversively during family problem solving sessions (Reid, Eddy, Fetrow, & Stoolmiller, 1999). The children who were most aggressive in the playground showed the largest change. At programme end they were no more aggressive than normally developing peers. The ES for this change was

0.79 (Stoolmiller, Eddy & Reid, 2000). Similarly, the mothers who were most aversive on entry made the greatest change during the intervention (Reid & Eddy, 2002). At a 3-year follow-up, youth in the 5th grade *control group* were 2.2 times more likely to be affiliated with misbehaving peers, 1.8 times more likely to be drinking alcohol regularly, and 2.4 times more likely to have been arrested than LIFT youth (Eddy, Reid & Fetrow, 2000). Similar, but somewhat attenuated differences were found at the 6-year follow up (Eddy, Reid, Stoolmiller & Fetrow, 2003).

4.2 Stop Now and Plan Under 12 Outreach Project (SNAP)

Description. The SNAP Under 12 Outreach Project (for boys) and the SNAP Girls Connection are multimodal Tier 2/Tier 3 (indicated) programmes designed for 6- to 11-year olds who have had (or are at risk of having) police contact and who score in the worst 2% on the Delinquency Scale of the Child Behaviour Checklist (CBCL). SNAP was developed in Toronto in the mid 1980s and is run out of the Toronto Child Development Institute. It has two main components: a parenting programme which appears to be an adaptation of PMTO (reviewed in Part 1, above) and a social skills training programme (Stop Now and Plan) for the aggressive child. Each part is delivered in 12 90-minute sessions. There are additional programme add-ons that families can take advantage of: academic tutoring for children who are underachieving relative to peers, "befriending" (mentoring) by a staff member or volunteer, family counselling, and restorative justice sessions. SNAP has many of the hallmarks of 1980s programmes for delinquents - counselling for parents, mentoring for the at-risk child, and restitution elements. The Child Development Institute state that "thousands" have completed the 5 day SNAP training and are accredited SNAP providers. The Child Development Institute also provides a 2-day training programme for teachers who wish to provide targeted SNAP social skills training in the classroom.

Resources. SNAP-ORP and SNAP-GC are manualised programmes and the manuals are available from the SNAP website at http://www.stopnowandplan.com. There are children's group manuals for boys groups and girls groups, a parent group leaders manual and a parents manual covering principles of behaviour, monitoring, charting, rewarding, time out, communicating, problem solving, and so on. Manuals are available only to sites holding a SNAP license.

Effectiveness. Published evaluation data exist only for the original pre-1994 programme which was provided to both boys and girls. In 1994, a separate girls programme was designed and, since then, SNAP-ORC has admitted only boys. The evaluations tend to be poorly designed consisting, as they do, of comparisons constructed from small samples selected from the Institute's on-going SNAP caseload. The first evaluation appears to be a waitlist control evaluation of 16 plus 12 children admitted to the program in 1994. The experimental group obtained lower post treatment scores than the waitlist group on parent reports and self reports of delinquent acts, parent CBCL reports of child behaviour problems and parents' reports of stress (Day & Hrinkiw-Augimeri, 1993). The next evaluation was a pre-post evaluation of 319 boys who received SNAP-ORP between 1985 and 1999. The authors report a significant reduction in parent reported delinquent behaviour as a result of programme completion (Augimeri, Jiang, Koegl & Carey, 2006). The first RCT compared 16 SNAP-ORP children against 14 matched children who participated in an activity programme. Post intervention, and again at a 1-year follow up, the SNAP children received significantly lower CBCL delinquency and CBCL aggression scores than children in the control group (Augimeri, Farrington, Koegl & Day, 2007). Following this, the researchers attempted to extend the Augimeri et al. (2007) study by adding a further 50 SNAP-ORP cases drawn from the 1985-1996 case files. The additional cases had significantly lower post-treatment scores on composite delinquency and aggression measures constructed using items from both the 1983 and 1991 versions of the CBCL (Koegl, Farrington, Augimeri & Day, 2008).

4.3 The Kazdin Method

Kazdin is director of the Yale Parenting Center and Child Conduct Clinic, author of *The Kazdin Method for Parenting the Defiant Child with No Pills, No Therapy, No Contest of Wills*, and a prolific author of reviews and textbooks.

Description. The intervention programme designed and evaluated by Kazdin and provided by the Yale Parenting Center and Child Conduct Clinic is a Tier 2/Tier 3 (indicated) intervention for individual children under 13 years of age and their parents. It is a combination of parent management training (PMT), parent problem solving (PPT) and/or problem solving skills training (PSST) for the child. The PMT programme is derived from PMT Oregon type (reviewed in Part 1): how to turn negative into positive interactions, how to strengthen prosocial behaviour, and how to decrease deviant behaviour. It is delivered in the form of 16 weekly 1-hour sessions. Additional sessions are provided if required. The child is gradually incorporated into the training to provide practice in negotiating behaviour contracts and so on. PPS is offered as a supplement to PMT and teaches coping skills which can used to better manage a range of stressors. Child problem solving training (PSST) is one-on-one training which teaches the child how to self-manage thoughts, feelings and behaviour and how to problem-solve in a positive pro-social manner. It consists of a set of 20 weekly sessions each lasting 40- to 50 minutes together with in vivo practice exercises. Parent and child attend the clinic at the same time and attend their sessions concurrently. The Center has recently begun to offer the PMT programme one-on-one on-line.

Resources. The Yale Parenting Center provides a PMT training and certification programme either on campus or off campus by arrangement.

Effectiveness. Two RCTs involving children from an inpatient child psychiatric facility have been reported. The first (Kazdin, Esveldt-Dawson, French & Unis, 1987) involved 34 children aged 7 to 12 years with ODD or CD diagnoses of whom 20 were assigned to the treatment group. Parents received 13, weekly, 2-hour, PMT sessions and their children received 20 sessions of one-on-one PSST. Parent ratings of child behaviour on the CBCL indicated fewer child behaviour problems at post treatment (ES compared to the no-treatment control = 0.96) and this was maintained at a 1-year follow-up. Teacher ratings fell by a similar amount on average (ES = 0.88) and this too was maintained at follow-up. The percentages of children whose scores fell in the normal range on the rating scales at the 1-year follow up were 61% for the treatment group and 40% for the control group (parent ratings), and 47% for the treatment group and 43% for the control group (teacher ratings).

A second RCT by Kazdin, Siegel and Bass (1992) compared PST, PPST, and PST plus PSST combined. Seventy-six children aged between 7 and 12 years were recruited from an inpatient facility in the same manner as for the 1987 study. The families in the PST plus PSST group received approximately twice as much therapist time as the families in the other two groups. At the 1-year follow-up, parent ratings on the CBCL for 33% of the children in the PSST group and for 29% of the children in the PST group had fallen to within the normal range. Parent ratings on the CBCL for the PST plus PSST group placed 40% of the children who started and 71% of the children who completed in the normal range, and teacher ratings on the teachers' version of the CBCL placed 40% of the children who started and 65% of the children who completed in the normal range.

In these studies, efficacy has been measured by parent and/or teacher ratings on the CBCL. There is no direct observation data. Kazdin, Holland and Crowley (1997) report that across 242 referrals to the clinic about 40 percent of the families admitted into treatment drop out of that treatment.

4.4 Coping Power

Description. The Coping Power Program (CPP), developed by John Lochman and Karen Wells, is a Tier 2/Tier 3 (indicated) programme which combines parent management training and social skills training for Year 6 and Year 7 children referred for persistent aggressive and/or antisocial behaviour. The Coping Power Child component runs for approximately 15 months spanning two school years and consists of eight sessions in the first year and 25 sessions the second year. The sessions are group sessions, they typically include the target child and three to five other children, they take place at school, they run for approximately an hour and are led by a trained CPP counsellor and a school guidance counsellor. These sessions focus on coping skills, peer relationship skills, social competence, anger management and social and academic problem-solving skills. The Coping Power Parent component is implemented over the same 15-month time period. It consists of 16 sessions and is delivered to groups of four to six sets of parents - usually at the child's school. The Parent Component is derived from the Oregon Parent Management Training programme and covers much the same parenting skills as PMTO.

Resources. Lochman is based at the University of Alabama and may be contacted through the Coping Power website at http://www.copingpower.com/. The following resources are available from Oxford University Press: a child group facilitator's guide (Lochman & Wells. 2008), a child group program workbook (Lochman, Wells & Lenhart, 2008), a parent group facilitator's guide (Wells, Lochman & Lenhart, 2008a), and a parent group workbook (Wells, Lochman & Lenhart, 2008b).

Effectiveness. Classification of the Coping Power programme as an evidence-based programme rests on the results of three RCTs, two undertaken in the US (Lochman & Wells, 2002, 2004) and one undertaken in the Netherlands (van de Wiel, Matthys, Cohen-Kettenis, Maassen, Lochman & van Engeland, 2007; Zonnevylle-Bender, Matthys, Nicolle, van de Wiel & Lochman, 2007).

The first US RCT (Lochman & Wells, 2002) involved several conditions of which two are relevant here: the indicated intervention, which involved 59 children who received both the parent and child components, and a control condition, which involved 63 children who received normal school services. All participants were 4th grade children who had received high scores from their teachers on a 3-item aggression rating scale. At the end of 6th grade no significant differences were found between the mean scores of the indicated and control groups with respect to parent reported or teacher reported proactive aggression or reactive aggression. The second US RCT (Lochman & Wells, 2004) involved 183 Grade 4 boys who were randomly assigned to (a) the child component, (b) the parent and child components and (c) a normal services control condition. Participants were selected using teacher ratings on Achenbach's Teacher Report Form and parent ratings on the Child Behaviour Checklist. Measures taken one year following the end of the intervention indicated lower self-reported covert delinquency scores (but not overt delinquency scores) for the parent and child group (ES = 0.25) and greater teacher-rated behavioural improvement for the parent and child group (ES = 0.38).

Effects in the Netherlands trial depended upon the control group treatment with Coping Power youth showing greater improvement on most measures than the Control youth receiving family therapy but similar improvements to those observed in the Control youth receiving behaviour therapy.

4.5 Multisystemic Therapy (MST)

Description. Multisystemic Therapy was designed for youth aged 10 to 18. MST targets individual teenagers and hence qualifies as a Tier 2/Tier 3 (indicated) intervention. The primary aim of MST is to change the systems which are operating to maintain the teenager's antisocial behaviour. Commonly, multisystemic therapists work to improve caregiver discipline practices, increase

positive family interactions, decrease association with deviant peers, increase association with prosocial peers, improve school performance and increase engagement in prosocial recreational activities. Interventions are individualised and typically last about 4 months with multiple therapist-family contacts occurring each week. Interventions are delivered by trained master's level therapists who receive on-site supervision from a doctoral level clinician on a weekly basis. Each treatment team consists of three to four therapists with each therapist carrying a caseload of four to six families. Treatment teams collaborate to provide 24 hour a day, 7 day a week coverage. Therapists are required to track and document the progress of each family on a weekly basis.

Resources. The MST website at www.mstservices.com lists the resources available. These include an organisational manual, supervisory manual, therapist and supervisory hiring toolkit, programme start-up kit, and information about training providers and training programmes. A list of New Zealand MST providers will be found at <www.mstnz.co.nz>.

Effectiveness. Controlled evaluations of MST have been reviewed by Curtis, Ronan and Borduin (2004). Inclusion of MST in this review rests of the results of four evaluations undertaken by the developers. These RCTS will be referred to as the Simpsonville study which involved 84 juvenile offenders who were randomly assigned either to MST or to conventional services such as probation (Henggeler, Melton & Smith, 1992; Henggeler, Melton, Smith, Schoenwald & Hanley, 1993), the Columbia study which involved 176 juvenile offenders randomly assigned either to MST or to individual counselling (Borduin et al., 1995; Schaeffer & Borduin, 2005), the community mental health centre study in which 155 juvenile offenders in South Carolina were randomly assigned either to MST or to current services (probation) (Henggeler, Melton, Brondino, Scherer, & Hanley, 1997), and the Charleston study in which 118 juvenile offenders with drug abuse diagnoses were randomly assigned to ether MST or current services (Henggeler, Clingempeel, Brondino, & Pickrel, 2002; Henggeler, Pickrell, & Brondino, 1999; Henggeler, Pickrell, Brondino, & Crouch, 1996).

In the Simpsonville study, the juvenile offenders assigned to MST were found, 1 year post referral, to have been arrested less often than the youth assigned to conventional services (means = 0.87 and 1.52) and to have spent fewer weeks incarcerated (means = 5.8 and 16.2 weeks) (Henggeler et al., 1992). Follow-up 2.4 years later indicated that only half as many MST youth (39%) as conventional services youth (20%) had been rearrested (Henggeler et al., 1993). Littell, Campbell, Green and Toews (2009) give the effect size for future arrest as -.45 and for future incarceration as -.62.

In the Columbia study, the youths assigned to MST were found, 3 to 5 years post probation, to have been arrested less often than the youths assigned to counselling (26% vs 71% arrested at least once). In addition, the recidivists in the MST group had been arrested significantly less often, had been arrested for significantly less serious crimes, and were less likely to have been arrested for violent crimes (Borduin et al., 1995). In a long term follow-up 10 to 16 years post-treatment, adults in the MST group were found to have a lower recidivism rate (50% vs 81%), to have engaged in fewer offences (1.82 vs 3.96 on average), to have committed fewer violent offences and fewer drug related offences, and to have spent less than half as many days in prison (Schaeffer & Borduin, 2005).

The third study, the mental health centre study, was an early attempt to trial MST in the normal community mental health environment with existing therapists who had received 6 days of in-service training in MST. In this study, the youth assigned to MST (followed up 1.7 years post-treatment) had been arrested less often but not significantly less often (with arrest means of 0.9 vs 1.2) and had spent fewer weeks incarcerated (4.7 vs 10 weeks per year on average) (Henggeler et al., 1997).

The Charleston study was also a community services study. In this study, a full course of treatment lasting, on average, 130 days, was completed by 98% of MST families (Henggeler et al., 1996). Measures collected 6 months post-treatment showed no significant difference between the groups with respect to measures of drug use or frequency of arrest but the MST youths had spent

half as much time incarcerated as the usual services youths (medians = 4.3 vs 9.4 weeks). In a long term follow-up 4 years post treatment, MST youth were found to be accumulating significantly fewer convictions for violent offences (0.15 vs 0.57 per year) but not for property offences. Urine screens revealed higher rates of marijuana abstinence for MST youth than for controls (55% vs 28%) (Henggeler et al., 2002).

MST has been trialled in New Zealand (Curtis, Ronan, Heiblum & Crellin, 2009) where post MST reductions in the frequency of offending and out of home placements were significant and similar in size to those observed in the US RCTS.

4.6 The Teaching Family Home Model (TFH)

The Teaching Family Home programme is one of the few exceptions to the general observation that residential programmes tend to result in rather poor outcomes for children and youth with early onset conduct problems. The original programme was referred to as Achievement Place and the most widely disseminated version of the original programme is the Girls and Boys Town's Family Home programme in the USA.

Description. Teaching Family Homes take youth aged 12 to 17 who have been referred by the youth justice system for residential placement. These are Tier 2 /Tier 3 (indicated) placements. Each home takes 6 to 8 antisocial teenagers at a time. Teaching Family Homes are staffed by a married couple who have completed a year long training programme and who have met certification requirements. The TFH programme includes a number of elements. A positive relationship between the teaching parents and each of the youths in the home is considered to be an essential element of treatment (Braukmann & Wolf, 1987). Teaching Family homes have a curriculum which includes social skills, self-help skills, problem solving skills, learning to maintain emotional control for extended periods of time, learning to accept feedback, and so on. Youths who are not motivated by social consequences are placed on a token economy in which all privileges (snacks, going out, extra TV, pocket money, money for clothing, time with one's family, etc.) have to be earned. Teaching Family youth attend the local school. Teaching parents maintain a close liaison with the school, keeping the school informed of behaviour changes which are being practised both at home and at school.

Resources. Various manuals describe the operational requirements of a TFH and the procedures to be followed while the children are in residence (e.g. Coughlin and Shanahan, 1988; Davis & Daly, 2003; Dowd & Tierney, 1992). There is also a manual for classroom teachers (Connolly, Dowd, Criste, Nelson, & Tobias, 1995).

Effectiveness. The TFH programme has been more carefully evaluated than any other residential treatment programme for antisocial teenagers. In addition to multiple studies of the effects of individual programme elements, at least six evaluations of the long term effects of Teaching Family home placements have been undertaken. One of the earliest of these (Kirigin, Braukmann, Atwater & Wolf, 1982), examined outcomes at a 1-year follow up for a group of 140 TF youths (from 12 TF homes) and a control group of 52 youths from traditional residential programmes. The data suggested that the TF youths made greater gains both socially and academically while in the programme but no significant differences were found on any of the police and court measures one year later. Subsequent evaluations (Jones & Timbers, 1982; Jones, Weinrott & Howard, 1981; Braukmann, Wolf, & Kirigin Ramp, 1985) have come to much the same conclusion both with respect to officially recorded and self-reported post-treatment offences. The long term outcomes seem to be shaped by the environment into which the teenager returns. A long term follow-up by Thompson, Smith, Osgood, Dowd, Friman & Daly (1996) of boys from Boys Town homes found significantly superior performance for Boys Town graduates on a range of educational measures (grade point average, secondary school completion, and attitudes to college) for four years post-treatment compared to youths in community programmes. A follow up study of 440 youth who were discharged from the Girls and Boys Town Family Home program during the 2-year period 1999-

2000 found that, across 16 outcomes, most residents had improved from intake to discharge and were functioning at levels similar to national norms on educational and employment measures at a 3 month follow up (Lazerele, Daly, Davis, Chmelka and Handwerk, 2004). An overview of the results of a number of Boy's Home follow-up studies has been provided by Friman (2000).

Research has also been undertaken into the importance of a positive interpersonal relationship between teaching parents and the teenagers in their care (e.g. Solnick, Braukmann, Bedlington, Kirigin & Wolf, 1981). These studies found that the antisocial youth who were living in Teaching Family Homes where they had developed a positive relationship with their teaching parents self-reported the lowest levels of delinquent activities.

4.7 Multidimensional Treatment Foster Care Oregon Type (MTFC-O)

Oregon type Multidimensional Treatment Foster care is an advanced model of treatment foster care which is producing positive effects with the most disadvantaged children and youth. It is a Tier 3 (intensive indicated) intervention.

Description. The Oregon model of Multidimensional Treatment Foster Care has been described by Chamberlain, Fisher and Moore (2002) and by Chamberlain (2003). It is a form of foster care in which children and youth are individually placed with trained foster parents. MTFC-O is based on the assumption that retraining 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. MTFC-O 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.

Children are placed in a family setting for 6 to 9 months. Foster parents are recruited, trained, and supported to become part of the treatment team. They provide close supervision and implement a structured, individualized program for each child. Foster parents receive 12 -14 hours of pre-service training, participate in group support and assistance meetings weekly, and have access to program staff back-up and support 24 hours a day, 7 days a week. Foster 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. Treatment foster parents are intensively supervised by a full time clinical supervisor who has a caseload of not more than 10 children and are paid a monthly salary.

A positive and predictable environment is established for children in the MTFC-O home via a structured behaviour management system and 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-O 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-O provide opportunities for the parents to practise their new skills and to receive feedback.

For children and youth who have been referred as a result of delinquency, a high level of supervision is provided. Management of the teenager 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. Over the course of the placement, levels of supervision and discipline are relaxed, consequent on 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-O roles: foster parents, programme supervisors, MTFC-O therapists and playgroup staff, family therapists, skills

trainers, and PDR callers. Details of these services are provided on the MTFC website at http://www.mtfc.com/

Effectiveness. The effectiveness of Treatment Foster Care has been reviewed by Reddy and Pfeiffer (1997). Five randomized trials testing the efficacy of MTFC-O have been completed and two of these included children in the 8-12 year old age group: Project KEEP and the Transitions Study. *Project KEEP* involved 700 San Diego children aged 5 to 12 years (from a variety of ethnic backgrounds) 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 behavioral and emotional problems. The sample included kinship and non-relative foster care providers. At treatment termination, children in the MTFC homes had lower rates of problem behavior and were more likely to experience a positive termination (such as reunification with parents) than a negative termination (Chamberlain, Price, Leve, Laurent, Landsverk & Reid, 2008; Price et al., 2008). The *Transitions Study* involved 20 children and adolescents with severe mental health problems who were being discharged from the Oregon State psychiatric hospital. Half were randomly assigned to MTFC and half 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 reported behavioral and emotional problems, and were more likely to be living in a family (versus institutional) setting (Chamberlain & Reid, 1991; Chamberlain, Fisher & Moore, 2002).

MTFC-O was one of 13 juvenile justice treatment programs evaluated for cost effectiveness by the Washington State Public Policy Group in the publication *The Comparative Costs and Benefits of Programs to Reduce Crime* (Aos, Phipps, Barnoski, & Lieb, 2001). In that analysis, MTFC-O had the largest effect size of any of the juvenile justice programs reviewed with a benefit-to-cost ratio of $43.70 for every dollar spent.

References

Aos, S., Phipps, P. Barnoski, R., & Lieb, R. (2001). *The comparative costs and benefits of programs to reduce crime: A review of national research findings with implications for Washington state.* Olympia, WA: Washington State Institute for Public Policy.

Augimeri, L. K., Farrington, D. P., Koegl, C. J., & Day, D. M. (2007). The SNAP Under 12 Outreach Project: Effects of a community based program for children with conduct problems. *Journal of Child and Family Studies, 16,* 799-807.

Augimeri, L. K., Jiang, D., Koegel, C. J., & Carey, J. (2006). *Differential effects of the SNAP Under 12 Outreach Project associated with client risk and treatment intensity.* Toronto: Child Development Institute.

Borduin, C. M., Mann, B. J., Cone, L. T., Henggeler, S. W., Fucci, B. R., Blaske, D. M., & Williams, R. A. (1995). Multisystemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. *Journal of Consulting and Clinical Psychology, 63,* 569-578.

Braukmann, C. J., & Wolf, M. M. (1987). Behaviorally based group homes for juvenile offenders, In E. K. Morris & C. J. Braukmann (Eds.) *Behavioral approaches to crime and delinquency: A handbook of application, research, and concepts* (pp. 135-159). New York: Plenum Press.

Braukman, C. J., Wolf, M. M., & Kirigin Ramp, K. (1985). *Follow-up of group home youths into young adulthood.* (Progress Report, Grant MH20030). Lawrence, KS: University of Kansas, Achievement Place Research Project.

Chamberlain, P. (2003). *Treating chronic juvenile offenders: Advances made through the Oregon Multidimensional Treatment Foster Care model.* Washington, DC: American Psychological Association.

Chamberlain, P., Fisher, P. A., & Moore, K. (2002). Multidimensional treatment foster care: Applications of the OSLC intervention model to high-risk youth and their families. In J. B. Reid,

G. R. Patterson, & J. Snyder (Eds.), *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention* (pp. 203-218). Washington, DC: American Psychological Association.

Chamberlain, P., Price, J., Leve, L. D., Laurent, H., Landsverk, J. A., & Reid, J. B. (2008). Prevention of behavior problems for children in foster care: Outcomes and mediation effects. *Prevention Science, 9,* 17-27.

Chamberlain, P., & Reid, J. B. (1991). Using a specialized foster care community treatment model for children and adolescents leaving the state mental hospital. *Journal of Community Psychology*, *19*, 266-276.

Connolly, T., Dowd, T., Criste, A., Nelson, C., & Tobias, L. (1995). *The well managed classroom: Promoting student success through social skill instruction.* Boys Town, NE: Boys Town Press.

Coughlin, D., & Shanahan, D. (1988). *Boys Town Family Home program.* Boys Town, NE: Father Flanagan's Boys Home.

Curtis, N. M., Ronan, K. R., & Borduin, C. M. (2004). Multisystemic treatment: A meta-analysis of outcome studies. *Journal of Family Psychology, 18,* 411-419.

Curtis, N. M., Ronan, K. R., Heiblum, N., & Crellin, K. (2009). Dissemination and effectiveness of multisystemic treatment in New Zealand: A benchmarking study. *Journal of Family Psychology, 23,* 119-129.

Davis, J. L., & Daly, D. L. (2003). *Girls and Boys Town long-term residential program training manual* (4th ed.). Boys Town, NE: Father Flanagan's Boys Home.

Day, D. M., & Hrinkiw-Augimeri, L. (1993). *Serving children at risk for juvenile delinquency: An evaluation of the Earlscourt under 12 outreach project.* Toronto: Earlscourt Child and Family Centre.

Dowd, T. P. & Tierney, J. (1992). *Teaching social skills to youth: A curriculum for child-care providers.* Boys Town, NE: Boys Town Press.

Eddy, J. M., Reid, J. B., & Fetrow, R. A. (2000). An elementary school-based prevention program targeting modifiable antecedents of youth delinquency and violence: Linking the interests of families and teachers (LIFT). *Journal of Emotional and Behavioral Disorders, 8,* 165-176.

Eddy, J. M., Reid, J. B., Stoolmiller, M. & Fetrow, R. A. (2003). Outcomes during middle school for an elementary school-based preventive intervention for conduct problems: Follow-up results from a randomised trial. *Behavior Therapy, 34,* 535-552.

Friman, P. C. (2000). Behavioral family-style residential care for troubled out-of-home adolescents: Recent findings. In J. Austin, & J. Carr (Eds.), *Handbook of applied behavior analysis* (pp. 187-209). Reno NV: Context Press.

Henggeler, S. W., Clingempeel, W. G., Brondino, M. J., & Pickrel S. G. (2002). Four-year follow-up of multisystemic therapy with substance abusing and substance dependent juvenile offenders. *Journal of the American Academy of Child and Adolescent Psychiatry, 41,* 868-874.

Henggeler, S. W., Melton, G. B., Brondino, M. J., Scherer, D. G., & Hanley, J. H., (1997). Multisystemic therapy with violent and chronic juvenile offenders and their families: The role of treatment fidelity in successful dissemination. *Journal of Consulting and Clinical Psychology, 65,* 821-833.

Henggeler, S. W., Melton, G. B., & Smith, L. A. (1992). Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology, 60,* 953-961.

Henggeler, S. W., Melton, G. B., Smith, L. A., Schoenwald, S. K., & Hanley, J. H. (1993). Family preservation using Multisystemic treatment: Long-term follow-up to a clinical trial with serious juvenile offenders. *Journal of Child and Family Studies, 2,* 283-293.

Henggeler, S. W., Pickrel, S. G., & Brondino, M. J. (1999). Multisystemic treatment of substance abusing and dependent delinquents: Outcomes, treatment fidelity, and transportability. *Mental Health Services Research, 1,* 171-184.

Henggeler, S. W., Pickrel, S. G., Brondino, M. J. & Crouch, J. L. (1996). Eliminating (almost) treatment dropout of substance abusing or dependent delinquents through home-based Multisystemic Therapy. *The American Journal of Psychiatry, 153,* 427-428.

Jones, R. J., & Timbers, G. D. (1982). *Evaluation of group homes for delinquent youth* (Final Report, Grant MH32854). Morganton, NC: BIABH Study Center.

Jones, R. R., Weinrott, M. R., & Howard, R. R. (1981). *The national evaluation of the Teaching-Family model.* (Final Report, Grants MH25631 & MH31018). Eugene, OR: Evaluation Research Group.

Kazdin, A. E., Esveldt-Dawson, K., French. N. H., & Unis, A. S. (1987). Effects of parent management training and problem-solving skills training combined in the treatment of antisocial child behavior. *Journal of the American Academy of Child and Adolescent Psychiatry, 26,* 416-424

Kazdin, A. E., Holland, L., & Crowley, M. (1997). Family experience of barriers to treatment and premature termination from child therapy. *Journal of Consulting and Clinical Psychology, 65,* 453-463.

Kazdin, A. E., Siegel, T. C., & Bass, D. (1992). Cognitive problem-solving skills training and parent management training in the treatment of antisocial behavior in children. *Journal of Consulting and Clinical Psychology, 60,* 733-747.

Kirigin, K. A., Braukman, C. J., Atwater, J. D., & Wolf, M. M. (1982). An evaluation of teaching-family (Achievement Place) group homes for juvenile offenders. *Journal of Applied Behavior Analysis, 15,* 1-16.

Koegl, C. J., Farrington, D. P., Augimeri, L. K., & Day, D. M. (2008). Evaluation of a targeted cognitive-behavioral program for children with conduct problems – the SNAP Under 12 Outreach project: Service intensity, age and gender effects on short- and long-term outcomes. *Clinical Child Psychology and Psychiatry, 13,* 419-434.

Lazelere, R. E., Daly, D. L., Davis, J. L., Chmelka, M. B. & Handwerk, M. L. (2004). Outcome evaluation of Girls and Boys Town's Family Home program. *Education and Treatment of Children, 27,* 130-149.

Littell, J. H., Campbell, M., Green, S., & Toews, B. (2009). Multisystemic therapy for social, emotional, and behavioural problems in youth aged 10-17 (Review). *The Cochrane Library,* Issue 4.

Lochman, J. E., & Wells, K. (2002). The Coping Power program at the middle-school transition: Universal and indicated prevention effects. *Psychology of Addictive Behaviors, 2*, S40-S54.

Lochman, J. E., & Wells, K. (2004). The Coping Power program for preadolescent aggressive boys and their parents: Outcome effects at the 1-year follow-up. *Journal of Consulting and Clinical Psychology*, *72*, 571-578.

Lochman, J. E., & Wells, K. (2008). *Coping Power: Group facilitiator's guide.* Cary, NC: Oxford University Press.

Lochman, J. E., Wells, K., & Lenhart, L. A. (2008). *Coping Power: Child group programme workbook.* Cary, NC: Oxford University Press.

Price, J. M., Chamberlain, P., Landsverk, J., Reid, J. B., Leve, L. D., & Laurent, H. (2008). Effects of foster parent training intervention on placement changes of children in foster care. *Child Maltreatment, 13,* 64-75.

Reddy, L. A., & Pfeiffer, S. J. (1997). Effectiveness of treatment foster care with children and adolescents: A review of outcome studies. *Journal of the American Academy of child and Adolescent Psychiatry, 36,* 581-588.

Reid, J. B., & Eddy, J. M. (2002). Preventive efforts during the elementary school years: The linking the interests of families and teachers project. In J. B. Reid, G. R. Patterson, & J. Snyder (Eds.), *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention* (pp. 219-235). Washington, DC: American Psychological Association.

Reid, J. B., Eddy, J. M., Fetrow, R. A. & Stoolmiller, M. (1999). Description and immediate impacts of a preventative intervention for conduct problems, *American Journal of Community Psychology, 24,* 483-517.

Schaefer, C. M., & Borduin, C. M. (2005). Long term follow-up to a randomised clinical trial of Multisystemic Therapy with serious and violent juvenile offenders. *Journal of Counselling and Clinical Psychology, 73,* 445-453.

Solnick, J. V., Braukmann, C. J., Bedlington, M. M., Kirigin, K. A., & Wolf, M. M. (1981). Parent-youth interaction and delinquency in group homes. *Journal of Abnormal Child Psychology, 9,* 107-119.

Stoolmiller, M., Eddy, J. M., & Reid, J. B. (2000). Detecting and describing preventative intervention effects in a universal school-based randomized trial targeting delinquent and violent behavior. *Journal of Consulting and Clinical Psychology, 68,* 296-306.

Thompson, R. W., Smith, G. L., Osgood, D. W., Dowd, T. P., Friman, P. C., & Daly, D. L. (1996). Residential care: A study of short- and long-term educational effects. *Children and Youth Services Review, 18*, 221-142.

van der Wiel, N. M. H., Matthys, W., Cohen-Kettenis, P. T., Maassen, H. H., Lochman, J. E., & van Engeland, H. (2007). The effectiveness of an experimental treatment when compared to care as usual depends on the type of care as usual. *Behavior Modification*, *31*, 298-312.

Wells, K., Lochman, J. E., & Lenhart, (2008a). *Coping Power: Parent group facilitiator's guide.* Cary, NC: Oxford University Press.

Wells, K., Lochman, J. E., & Lenhart, (2008b). *Coping Power: Parent group workbook.* Cary, NC: Oxford University Press.

Zonnevylle-Bender, M. J. S, Matthys, W, van der Wiel, N. M. H,, & Lochman, J. E. (2007). Preventive effects of treatment of disruptive behavior in middle childhood on substance use and delinquent behavior. *Journal of the American Academy of Child and Adolescent Psychiatry*, *46*, 33-39.

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