

Conduct Problems

Best Practice Report

2009



Report by the Advisory Group on Conduct Problems

Advisory Group on Conduct Problems

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Table of contents

Executive summary	1
Part 1: Background to the report	10
1.1 Introduction	10
1.2 Treaty considerations	11
1.3 Issues of classification and terminology	11
1.4 Why it is important to address conduct problems	14
1.5 When to intervene	15
1.6 Co-occurring conditions	16
1.7 Policy recommendations	17
Part 2: Review of evidence on effective interventions	18
2.1 Introduction	18
2.2 The prevention of childhood conduct problems	19
2.3 The treatment and management of conduct problems in children and young people	20
2.4 Interventions for 3–12 year-olds	21
2.5 Interventions for adolescents and young adults	24
2.6 Other issues in the management of conduct problems in childhood and adolescence	26
2.7 Conclusions	27
2.8 Policy recommendations	29
Part 3: From evidence to policy	30
3.1 Recommended policy portfolio	30
3.2 The role of population screening	33
3.3 Factors contributing to implementation fidelity and programme effectiveness	34
3.4 The management of comorbid or associated childhood and adolescent problems	36
3.5 Prevention science and policy development	37
3.6 Policy recommendations	38
Part 4: Cultural issues	40
4.1 Te Ao Māori view of conduct problems	40
4.2 Policy recommendations for Māori	43
4.3 Pacific peoples and conduct problems	44
4.4 Policy recommendations for Pacific peoples	47
4.5 Asian peoples and conduct problems	47
4.6 Policy recommendations for Asian peoples	53
References	54

Executive summary

This is the first of a series of reports prepared by the Advisory Group on Conduct Problems on the prevention, treatment and management of conduct problems in children and young people. For the purposes of this and subsequent reports, conduct problems are defined as follows:

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.

This report provides a background and overview of issues relating to conduct problems and their treatment. The report is presented in four parts.

Part 1 provides a background to the report and addresses a series of key issues.

- 1.2 Treaty considerations:** This section examines issues relating to the development of policy for conduct problems in the context of the Treaty of Waitangi. The section concludes that there are grounds for the development of parallel Te Ao Māori and generic policies.
- 1.3 Issues of classification and terminology:** This section examines issues of terminology and develops the definition set out above. The section concludes that 5–10 per cent of children of all ages will have clinically significant levels of conduct problems.
- 1.4 Why it is important to address conduct problems:** This section reviews evidence from New Zealand longitudinal studies showing that early conduct problems are precursors of a wide range of adverse outcomes including crime, imprisonment, mental health problems, suicidal behaviours and physical health problems. The discussion notes that there is no other commonly occurring childhood condition that has such far-reaching implications for later development.
- 1.5 When to intervene:** This section examines the development of conduct problems and identifies two trajectories. The first involves children who show an early onset of conduct problems that persist over the life course. The second involves young people who show an onset of conduct problems in adolescence. In conclusion, it is important that interventions to address conduct problems are based around a developmental model that recognises the need to provide age appropriate treatment and management of conduct problems.

1.6 Co-occurring conditions: This section notes that childhood conduct problems seldom occur in isolation and frequently those with conduct problems will be at increased risks of attention deficit hyperactivity disorder (ADHD), early onset alcohol and substance abuse, school suspension and dropout, teen pregnancy and mental disorders.

1.7 Policy recommendations

- 1.7.1 An expert Māori committee should be set up to examine the issues raised by childhood conduct problems from a Māori perspective.
- 1.7.2 The definition of conduct problems set out on page 1 should be used to provide a unified terminology for the identification, treatment and management of these problems in the health, education and social welfare sectors.
- 1.7.3 The prevalence of conduct problems in the child population is estimated to be 5–10 per cent. Service planning should be targeted at a minimum of 5 per cent of 3–17 year-olds.
- 1.7.4 There is a need for increased policy recognition of the long-term consequences of untreated childhood conduct problems for later aspects of adjustment including crime, mental health, physical health, parenting, employment, welfare dependence and related outcomes.
- 1.7.5 The prevention, treatment and management of childhood conduct problems should be based around a developmental perspective that recognises both the importance of early intervention and the need to provide age appropriate treatment, management and follow-through services throughout childhood and adolescence.
- 1.7.6 The development of services for the prevention, treatment and management of conduct problems needs to take into account the known co-occurrence of these problems with other behavioural and academic difficulties including ADHD, learning problems, mood and anxiety disorders, alcohol and substance abuse/dependence, and suicidality.

Part 2 provides a review of evidence on effective interventions.

- 2.1 Introduction:** This discusses the importance of randomised controlled trials (RCTs) for identifying effective programmes and introduces the criterion that all programmes recommended are supported by evidence from at least two independent randomised trials.
- 2.2 The prevention of childhood conduct problems:** This section examines programmes that seek to intervene during the pre-school years to reduce the risk of the development of conduct problems in children from high-risk backgrounds. Two approaches to prevention are identified. The first approach involves intensive home visiting programmes provided by family support workers. The second involves the use of centre-based programmes where children attend early education centres that have an explicitly developed curriculum aimed at reducing the risk of early conduct problems. While there is evidence for the effectiveness of both approaches, a number of trials of home visiting have failed to show benefits. It is concluded that while continued investment into the prevention of conduct problems is justifiable, the extent of the investment should be aligned to evidence of programme efficacy.
- 2.3 The treatment and management of conduct problems in children and young people:** This section discusses the evidence base used to identify effective treatment for children and young people with clinically significant levels of conduct problems.
- 2.4 Interventions for 3–12 year-olds:** This section reviews the evidence on effective programmes for the treatment of conduct problems in 3–12 year-old children. A series of effective programmes are identified including: a) parent management training programmes; b) classroom and school-based interventions; c) child therapy; d) treatments combining home and school programmes. It is concluded that for all of these programmes there is good evidence to suggest that well-designed programmes may make substantial reductions in rates of childhood conduct problems with these benefits being most evident for parent management training with younger (3–7 year-old) children.
- 2.5 Interventions for adolescents and young adults:** This section reviews evidence on the effective treatment of conduct problems in adolescents and young adults. It is noted that as a general rule treatment programmes for this group tend to be less effective than for children under the age of 12. Nonetheless, a range of treatments showing promise was identified. These treatments included: a) cognitive behaviour therapy (CBT); b) multisystemic therapy (MST); c) functional family therapy (FFT); d) treatment foster care (TFC).

- 2.6 Other issues in the management of conduct problems in childhood and adolescence:** Two further issues are briefly reviewed. First, consideration is given to the role of medication in the treatment of conduct problems. It is concluded that while there is evidence that in some circumstances medication may be helpful, the provision of medication is not a substitute for well-designed behavioural interventions. The section also considers the role of other treatments not reviewed above. It is concluded that given there is now a growing list of well-established treatments, policy should focus on these treatments rather than those lacking compelling evidence of efficacy. This conclusion does not preclude the possibility that programmes that do not meet the stringent requirements used in this report may be shown to be effective at a later date.
- 2.7 Conclusions:** This section identifies a recommended list of interventions that include: a) home and centre-based programmes; b) parent management training; c) school and classroom-based interventions; d) combined home and school programmes; e) CBT and social skills training; f) MST; g) FFT; h) TFC. The section also outlines a number of key issues in translating existing evidence to effective policy.
- 2.8 Policy recommendations**
- 2.8.1 The minimum criteria for the selection of effective programmes for the management of conduct problems should be based on strong evidence of reduction of conduct problems provided by at least two well-conducted randomised trials and proper investment in these evaluations.
- 2.8.2 Investments in early prevention should include the development and evaluation of home visiting programmes and centre-based programmes. This investment should be proportional to the evidence for programme efficacy. Programme investment on a national level should not take place until efficacy is proved in randomised trials.
- 2.8.3 The major investment in this area should be in programmes that seek to treat and manage childhood conduct problems.
- 2.8.4 The development of programmes to treat and manage conduct problems in 3–7 year-olds should be given the highest priority in programme development, implementation and evaluation.

Part 3 examines the issues that need to be addressed in translating evidence into effective policy.

- 3.1 Recommended policy portfolio:** On the basis of the evidence reviewed, the committee recommended that the following portfolio of policies should be considered as a starting point for more detailed policy development:
- 3–7 year-olds: a) parent management training; b) teacher management training; c) combined parent/teacher interventions; d) classroom-based interventions
 - 8–12 year-olds: a) parent management training; b) teacher management training; c) combined parent/teacher interventions; d) classroom-based interventions; e) TFC
 - 13–17 year-olds: a) teacher management training programmes; b) CBT and related therapies; c) combined teacher/parent interventions; d) MST; e) FFT; f) TFC.
- 3.2 The role of population screening:** The report examines the case for developing population screening to identify children with conduct problems. It is concluded that this approach is not justified at present and that the major priority should be a focus on providing effective treatments for children coming to the attention of key government agencies because of conduct problems.
- 3.3 Factors contributing to implementation fidelity and programme effectiveness:** This section examines the factors that determine the success of treatment programmes. These are factors that influence: a) adherence to the programme by staff and clients; b) extent of client exposure to the programme; c) the quality of programme delivery; d) participant responsiveness to the programme.
- 3.4 The management of comorbid or associated childhood and adolescent problems:** This section examines the issues that arise in the treatment of a wide range of conditions that often co-occur with conduct problems. In conclusion, it is important that the management of conduct problems is not developed in isolation from the wide range of child and adolescent problems that co-occur with these problems.
- 3.5 Prevention science and policy development:** This section develops a systematic approach for the translation of interventions to the New Zealand context. Key elements of this translation process include: a) adaptation of programmes to the New Zealand context; b) pilot studies to develop provider skills and examine programme feasibility; c) randomised trials to establish programme efficacy; d) formative research to improve the delivery of the intervention method; e) population implementation.

3.6 Policy recommendations

- 3.6.1 The recommended portfolio of programmes to treat and manage conduct problems is shown in Table 3.1.
- 3.6.2 The use of population screening methods to identify children with conduct problems should not proceed until adequate services have been developed to treat and manage these problems.
- 3.6.3 In the first instance, the development of new services should occur in a co-ordinated way within existing government services provided by the Ministry of Social Development (Child, Youth and Family), the Ministry of Education and the Ministry of Health.
- 3.6.4 The importance of maintaining programme fidelity should be recognised at all stages of the selection, development, implementation and evaluation of new services. A specialist advisory group should be established to ensure this takes place.
- 3.6.5 Effective cultural consultation should take place at all stages of the development, implementation and evaluation of new services.
- 3.6.6 The development of all new services should use a prevention science approach that involves adequate pilot studies to ensure cultural acceptability, programme fidelity and client acceptability and randomised trials to assess programme efficacy.
- 3.6.7 It should be accepted by all involved that the development of effective systems for the prevention, treatment and management of conduct problems is a long-term (15–20 year) process and that quick-fix solutions are unlikely to be effective and may divert resources from long-term planning and development.

Table 3.1: Recommended portfolio of interventions for the treatment and management of conduct problems

Intervention	Age		
	3-7	8-12	13-17
Parent Management Training	✓	✓	–
Teacher Management Training	✓	✓	✓
Combined Parent/Teacher Programmes	✓	✓	–
Classroom-based Intervention	✓	✓	–
Cognitive Behaviour Therapy	–	✓	✓
Multi-modal Interventions			
Multisystemic Therapy	–	✓	✓
Functional Family Therapy	–	✓	✓
Treatment Foster Care	–	✓	✓

Part 4 comprises a series of sections on issues relating to the management of conduct problems prepared by a series of expert Māori, Pacific and Asian authors. The purpose of this section is to have the voices of different ethnic groups included in the report. Each section concludes with a series of recommendations prepared by the authors of the section.

4.1 Te Ao Māori view of conduct problems:

This section provides an overview of issues relating to conduct problems from a Te Ao Māori viewpoint. This contribution makes the following points:

- In line with the recommendations made in Part 1, Te Roopu Kaitiaki will develop a separate report developing kaupapa Māori responses for Māori tamariki, taiohi and whānau experiencing conduct problems.
- Colonisation and alienation from the land are key factors in the processes that have placed Māori at increased risk of conduct problems. It is estimated that 15–20 per cent of Māori tamariki and taiohi will exhibit conduct problems sufficient to merit attention. This high rate of problems underlines the importance of programmes in New Zealand being culturally acceptable to Māori.
- While Te Roopu Kaitiaki supports the evidence-based approach outlined in Parts 2 and 3 of the report it is of the view that to be fully effective for Māori, programmes need to incorporate Māori traditional knowledge.
- Effective clinical practice for Māori is dependent on a workforce that is based on recognised clinical and professional standards that are underpinned by Māori values, concepts and approaches to community.
- The development of conduct problem prevention and treatment programmes should be aimed at working with the whānau rather than just tamariki or taiohi.
- Recent evidence suggests that Māori whānau face significant barriers in accessing mental health care.
- Best practice principles for working with Māori include: a) a focus on culture, Māori tikanga and wellbeing; b) assessment processes that include cultural, clinical, educational and social dimensions; c) increased Māori participation in the planning and delivery of services; d) whānau-inclusive practices.

4.2 Policy recommendations

Generic programmes

4.2.1 The prevalence of conduct problems in the Māori child population is estimated to be 20 per cent. Service planning should be targeted to a minimum of 15 per cent of Māori 3–17 year-olds.

4.2.2 Effective cultural consultation and participation by Māori should take place at all stages of the development and evaluation of new services under the Treaty-based relationship described in section 1.2.

Te Ao Māori programmes

- 4.2.3 The evidence-based approach needs to recognise indigenous knowledge and experience as a valid contribution to the analysis and critique of programmes for conduct problems.
- 4.2.4 A major investment is required to support the gathering and analysis of evidence from a Te Ao Māori context to sit as part of the evidence base in Aotearoa/New Zealand to fully inform the delivery of effective programmes for conduct problems.
- 4.2.5 Effective cultural consultation and participation by Māori should take place at all stages of the development and evaluation of new services under the Treaty-based relationship described in section 1.2.

4.3 Pacific peoples and conduct problems: The population of New Zealand Pacific peoples is one of the fastest growing, making up 6.6 per cent of the total population. Although data is limited on the prevalence of conduct problems among Pacific young people, it seems likely that these young people will be over-represented in the population of young people with conduct problems. For these reasons, ensuring accessible and appropriate services for Pacific young people is an issue of high priority within Government.

Key issues in the provision of effective services for Pacific young people include:
a) the provision of culturally competent care; b) recognition of the validity of Pacific peoples' knowledge and realities; c) equity of access to appropriate services; d) involvement of Pacific peoples in the provision of services; e) development of standards of cultural competence.

4.4 Policy recommendations

- 4.4.1 Generic services for conduct problems in the Ministries of Health, Education and Social Development (Child, Youth and Family) should be culturally competent for Pacific children, youth and their families. These services will need to have a Pacific specific service delivery plan which is adequately funded with clear deliverables.
- 4.4.2 Pacific workforce development in services provided by the Ministries of Health, Education and Social Development (Child, Youth and Family) should be supported at all levels to enable that competence.
- 4.4.3 Engagement with the Pacific peoples' community of New Zealand needs to occur to raise the awareness of conduct problems, and the need for early intervention and prevention.

4.5 Asian peoples and conduct problems: Just under 10 per cent of New Zealanders are of Asian origin and this population is projected to double by 2021. The prevention, treatment and management of conduct problems raise a number of complex issues relating to six key areas:

- Diagnoses/concepts of conduct problems: In part the definition of conduct problems in children and young people will depend on cultural expectations of appropriate and inappropriate behaviours. These may vary from group to group – for example among Asian populations, views of so-called hyperactive behaviour vary considerably.
- Parents: Parental behavioural patterns play a well-recognised role in the development of conduct problems. Asian parents may be subject to a number of stresses that are specific to these population groups. These stresses include post-migration and acculturation stresses, lack of support from extended family, parental separations, racial discrimination and reluctance to seek professional help.
- Children: It is important that programmes aimed at addressing conduct problems consider the cultural background of the child and the way in which the stresses of migration may influence behavioural adjustment.
- Teachers: It is important that teachers increase their awareness of the issues facing children and families from culturally and linguistically diverse backgrounds by developing cultural awareness, knowledge and skills.
- Health professionals: A range of health professionals may work with Asian children having conduct problems. It is recommended that health professionals working with Asian families participate in cultural competence training and that adequate cultural supervision is available.
- Service accessibility: A final factor that may influence the treatment of conduct problems for Asian young people concerns various barriers that may prevent Asian people accessing health services. These factors include such things as shame, embarrassment, lack of knowledge, mistrust of the New Zealand health system and related factors.

4.6 Policy recommendations

- 4.6.1 A socio-cultural, developmental, psychological perspective needs to be considered in conduct problem prevention and intervention for Asian children and their families.
- 4.6.2 Teachers and health professionals need to participate in cultural competence training with regard to working with children and families of Asian descent.
- 4.6.3 Careful consideration should be required when applying overseas research findings to Asian migrant audiences within diverse social contexts in New Zealand.
- 4.6.4 Issues associated with the post-migration adjustment process need to be taken into account throughout the planning and implementation phase of intervention with recently migrated Asian children as well as their parents.
- 4.6.5 Asian experts should continue to provide specialist input into the development of new services and relevant conduct problem policies as part of the implementation of the *Inter-agency Plan for Conduct Disorder/Severe Antisocial Behaviour 2007–2012*.

Part 1: Background to the report

1.1 Introduction

- 1.1.1 This is the first of a series of reports being prepared by the Advisory Group on Conduct Problems (AGCP) to provide advice to government officials on the identification, treatment and management of childhood conduct problems. The purpose of this report is to lay the groundwork for later and more detailed reports and recommendations. The report is presented in four parts.
- 1.1.2 The first part sets the background for the development of policy relating to childhood conduct problems. This section presents:
- a working definition of conduct problems designed for inter-sectoral use (Section 1.3)
 - an account of the policy significance of addressing conduct problems (Section 1.4)
 - a description of the development of conduct problems (Section 1.5)
 - an account of other childhood and adolescent conditions that frequently accompany childhood conduct problems.
- 1.1.3 The second part of the report examines programmes and interventions aimed at the management and treatment of childhood conduct problems. This section presents:
- a discussion of the criteria used to identify effective programmes (Section 2.1)
 - a review of effective early childhood programmes aimed at preventing conduct problems (Section 2.2)
 - a discussion of effective interventions and treatments to manage conduct problems (Section 2.3)
 - a discussion of programmes and approaches of unproven efficacy.
- 1.1.4 The third part of the report begins to examine the issues that arise in the translation of evidence to policy. This section presents:
- a recommended portfolio of programmes and interventions for the prevention, treatment and management of conduct problems in 3–7 year-olds, 8–12 year-olds and 13–17 year-olds. (Section 3.1)
 - an examination of the role of population screening (Section 3.2)
 - a discussion of the prevention science approach to policy development and intervention.
- 1.1.5 The AGCP decided the development of this generic policy was to be the focus of this report with the foundations and recommendations based on existing scientific literature on the identification, treatment and management of childhood conduct problems. Part 4 of the report examines the issues that arise in delivering such policy in a multicultural society, as they apply to key population groups including Māori (Section 4.1), Pacific (Section 4.2) and Asian peoples (Section 4.3).

- 1.1.6 It should be stressed that this report is not intended as a review of the large amount of literature on childhood conduct problems and the treatment/management of these problems. Rather, it represents an attempt by an expert group to distil the existing evidence to present an evidence base suitable for policy debate and development. For these reasons many of the conclusions drawn in the report draw heavily from the conclusions in existing reviews of the evidence rather than from a direct examination and analysis of specific research studies.

1.2 Treaty considerations

- 1.2.1 An important part of the deliberations of the AGCP concerned the positioning of the present report in the context of the obligations and responsibilities outlined in the Treaty of Waitangi. It has been well documented that Māori are at increased risk of conduct problems and related conditions (1–4). In addition, there have been increasing concerns expressed by Māori about the need for social policy concerning Māori to be developed within a Te Ao Māori framework that acknowledges the role of Māori culture, language and values in the development of such policy (5). These claims have been underwritten by article two of the Treaty of Waitangi which, in effect, guarantees Māori control of their cultural and social destiny.
- 1.2.2 This background raises the complex issue of developing social policy based on Western scientific evidence while at the same time recognising the need for New Zealand policy to acknowledge the rights of Māori guaranteed by the Treaty of Waitangi. The solution to this problem proposed by the AGCP was that there should be parallel processes of policy development with these processes corresponding to the obligations implied by articles two and three of the Treaty.
- 1.2.3 To meet article two obligations it was proposed that an expert Māori committee be set up to advise and make recommendations on a conduct problem policy from a Te Ao Māori view. However, article three of the Treaty of Waitangi, in effect, guarantees that Māori have citizenship rights to access ‘generic’ services provided to all New Zealanders.

1.3 Issues of classification and terminology

- 1.3.1 Since the 1960s there has been a very large body of research into the measurement and classification of disruptive and antisocial behaviours in childhood and adolescence. These behaviours span a number of related domains including aggression, violence, dishonesty, defiance, inattentiveness, hyperactivity and related behaviours (6–10). This report focuses on a series of behaviours including antisocial, disruptive, aggressive, dishonest and related behaviours that may be present in childhood and adolescence. In early and middle childhood these behaviours will typically comprise aggressive, defiant, hostile and disruptive behaviours. However, in adolescence these behaviours will become elaborated to include delinquency, risk-taking, precocious sexual conduct and other related behaviours. Children and

young people showing extreme forms of these behaviours may engage in such acts as fire setting and cruelty to animals. These problems are frequently of early onset and develop in extent and severity over the individual's life course.

- 1.3.2 Research into these childhood conduct problems has evolved in a number of research traditions that have used different methodologies and assumptions about the measurement and underlying cause of conduct problems. These disciplines span from psychiatry, psychology, psychometrics, education, early intervention, applied behaviour analysis and sociology, to behavioural genetics and other related disciplines. There have been two consequences of the multidisciplinary foundations of research into conduct problems. First, there have been disciplinary differences in the ways in which conduct problems have been explained. For example, research into conduct problems within educational settings has often used methods of applied behaviour analysis to examine the ways in which adult/child interactions may encourage, shape and sustain conduct problems in children predisposed to antisocial behaviours (6, 11, 12). In contrast, recent research in the area of behavioural genetics has focused on the underlying physiological and genetic processes that may predispose children to developing these problems (13–16). What emerges from the very large body of evidence on childhood conduct problems are that these problems are complex and multi-causal and involve a complex interaction between genetic factors, societal factors, the family, the school and peers, all of which may combine in various ways to increase or decrease the likelihood that young people will develop conduct problems.
- 1.3.3 A consequence of the different traditions within research which have evolved has been the use of alternative terminologies to describe the same set of behaviours. The dominant terminology has evolved in psychiatry and clinical psychology through the development of standardised diagnostic systems and, notably, the Diagnostic and Statistical Manual of Mental Disorders (DSM) classifications developed by the American Psychiatric Association. These systems classify childhood and adolescent conduct problems into a number of diagnostic groupings based on standardised clinical criteria. These criteria are established by expert committees and are based on a combination of research evidence and clinical consensus. The development of these criteria has been shown to result in substantial improvements in the reliability and transparency of clinical diagnosis (17, 18). The most recent versions of this manual (DSM IV) have identified a series of correlated and comorbid childhood conduct problems. These include oppositional defiant disorder, conduct disorder and attention deficit hyperactivity disorder (19).
- 1.3.4 However, while the DSM terminology has been influential in psychiatry and clinical psychology, it has been found to be less influential in other disciplinary areas, notably, education. While no agreed terminology has been developed within education and related disciplines, educational researchers have used a range of descriptions to describe childhood conduct problems. The terms have included emotional and behavioural difficulties, serious emotional disturbance, antisocial and

under-socialised. Terms which are currently fashionable in New Zealand are children with behavioural difficulties and children with challenging behaviours (6).

- 1.3.5 The aims of the present report were to provide a review of evidence and set of recommendations that could be applied across health, education, social welfare and justice sectors. For this reason it was seen as important to develop a terminology that accurately described problem behaviours but was acceptable across sectors and disciplines. The solution the committee reached was to propose that the focus of policy should be on conduct problems. For the purposes of this report conduct problems were defined in the following way:

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.

- 1.3.6 It was the committee's view that this terminology summarised the major themes in the psychiatric, educational and developmental literature and would be acceptable across sectors. It should be noted that this definition does not include attention deficit hyperactivity behaviours. The reason for this is that the aetiology, treatment and consequences of attention deficit hyperactivity behaviours differ from that of conduct problems as defined above (20–22). For these reasons it was believed that the management of attention deficit hyperactivity behaviours was a topic that needed a separate policy development process.¹
- 1.3.7 The conceptualisation of conduct problems as a dimensional variable rather than a diagnostic classification raises issues about the behavioural threshold at which intervention to manage conduct problems should begin. After considering the data on the prevalence of serious conduct problems from a series of New Zealand and international studies (3, 6, 23–26), the committee was of the view that at any point in time, in the region of 5–10 per cent of young people will display conduct problems of sufficient severity to merit intervention. The majority (75 per cent approximately) of these young people will be male.

On the basis of these estimates the committee was of the view that planning to address childhood conduct problems should be designed to provide services to a minimum of 5 per cent of 3–17 year-olds.

¹ See MoH guidelines of ADHD (Ministry of Health: New Zealand Guideline for the Assessment and Treatment of Attention Deficit/Hyperactivity Disorder, Wellington: Ministry of Health 2001).

1.4 Why it is important to address conduct problems

- 1.4.1 There are two important reasons why social investments should be made to improve the recognition and management of conduct problems in childhood and adolescence. First, these problems will often cause stress, difficulty and concern to both the young person and those involved with them (27, 28). In New Zealand these issues have been reflected in rising public concerns about antisocial behaviours in young people and by growing concerns expressed by teachers about issues of classroom behavioural management (29, 30). The first reason for improving the recognition and management of conduct problems is to reduce the short-term stresses and concerns that these problems raise.
- 1.4.2 A more important reason for intervening is that New Zealand-based research from the Christchurch and Dunedin longitudinal studies has established that conduct problems in childhood are precursors of a wide range of adverse outcomes in adulthood. These adverse outcomes include criminal offending, imprisonment, alcohol and substance abuse, teen pregnancy, mental health problems, suicidal behaviours and poor physical health (9, 21, 31–37). In addition, these problems are associated with limited educational achievement, higher welfare dependence and limited earnings (21, 35). The linkages between conduct problems and teen pregnancy and family functioning also raise important issues about the inter-generational transmission of conduct problems. There is probably no other common childhood condition that is associated with such far-reaching and pervasive developmental consequences.
- 1.4.3 An important implication of the multiple consequences associated with childhood conduct problems is the high economic cost of addressing them. Estimates suggest that the public cost of providing services to children with severe conduct problems is about 10 times the cost for children without conduct problems (38, 39). This costing does not take into account the distress caused to both the individual and those around him/her by severe conduct problems.
- 1.4.4 For all of these reasons there are both short and long-term benefits for effective intervention with conduct problems. In the short-term, such intervention may reduce the difficulties and stresses posed by childhood conduct problems whereas in the longer term, effective intervention may prevent the development of the longer term adverse outcomes associated with these problems. The high costs associated with childhood conduct problems provide strong justification for reducing the prevalence of these problems within the child population.

1.5 When to intervene

- 1.5.1 Although a strong case can be made for the value of effective interventions with childhood conduct problems, it is also important to consider the developmental stages at which intervention is likely to be effective and appropriate. This issue, in turn, requires consideration of the developmental pathways associated with childhood conduct problems.
- 1.5.2 There is a large amount of research that has suggested the development of childhood conduct problems follows one of two major developmental pathways. The first pathway involves children who show an early onset of conduct problems which may be evident as early as two years old. These children show patterns of early aggressive, oppositional and violent behaviours which, if left untreated, develop progressively and become increasingly elaborated over the life span. These are the minority of young people who show persistent behavioural problems in the school setting, who may often be known to a range of community agencies for their difficult behaviours and who in adolescence may show criminal behaviours, alcohol and substance abuse, and related problems. This developmental trajectory has been described in a number of ways including the life course persistent pathway (34, 40) and the antisocial pathway (6). Despite differences in terminology all accounts describe a group of children and young people with pervasive problem behaviours that begin early in life and escalate over the life course.
- 1.5.3 However, not all children and young people will follow a life course persistent trajectory. An important group that has been identified in many studies are those who do not exhibit marked conduct problems during childhood but show an onset of these problems in adolescence (9, 40).
- 1.5.4 The aetiological bases of these developmental pathways are believed to differ with the life course persistent pathway reflecting a combination of genetic, biological and social adversities that combine to encourage and sustain the development of conduct problems over the life course. In contrast, the principal mechanisms accounting for the adolescent limited pathway relate to patterns of peer influence (9, 40).
- 1.5.5 The study of developmental trajectories has a number of important implications for the planning of interventions to address conduct problems. These implications are:
- early intervention is important as it provides an opportunity to divert those on an antisocial pathway away from this pathway before behaviour patterns have become consolidated and resistant to change
 - while early intervention is important, it is also important to develop a life course approach that provides a portfolio of age appropriate interventions. There are two reasons for this. First, early intervention will not be successful in all cases and there will be a need for the ongoing treatment and management of those for whom early intervention is not successful. Second, the presence of the

adolescent limited group shows that not all conduct problems will be evident during the early years.

The next section of the report provides a summary of the current research evidence on interventions that may be effective in the prevention, treatment and management of childhood conduct problems.

1.6 Co-occurring conditions

- 1.6.1 Childhood conduct problems seldom appear in isolation and children with these problems will often have accompanying problems. These problems are often described as being co-occurring or comorbid with conduct problems.
- 1.6.2 In early and middle childhood, children with clinically significant conduct problems will often present with other difficulties. These will include attention deficits and hyperactivity, low intelligence, academic underachievement, depression and anxiety, early onset use of alcohol and tobacco, and related problems (3, 25, 26, 41, 42).
- 1.6.3 In adolescence the comorbidities associated with conduct problems increase both in extent and their implications for the social adjustment of the young people. Conditions co-occurring with conduct problems in adolescence include early sexual behaviours and teenage pregnancy, early onset alcohol and substance abuse and dependence, serious school problems including suspension, truancy and school drop-out, and the development of mental disorders including depression, anxiety disorders and suicidal behaviours (3, 42, 43).
- 1.6.4 The frequency with which other conditions accompany conduct problems has two implications for the provision of services for young people facing these challenges. First, the presence of comorbid conditions may limit the effectiveness of interventions for conduct problems. Second, it is clear that to be effective it is important that programmes and interventions for conduct problems are embedded in a wider system of services directed at ensuring the health, adjustment and wellbeing of young children.
- 1.6.5 In this and subsequent reports, the focus of the discussion will be on the identification of methods and processes for treating and managing conduct problems. This focus, however, does not imply that the need to provide effective services for the treatment and management of conditions that co-occur with conduct problems should be overlooked.

1.7 Policy recommendations

- 1.7.1 An expert Māori committee should be set up to examine the issues raised by childhood conduct problems from a Māori perspective.
- 1.7.2 The definition of conduct problems set out on page 13 should be used to provide a unified terminology for the identification, treatment and management of these problems in the health, education and social welfare sectors.
- 1.7.3 The prevalence of conduct problems in the child population is estimated to be 5–10 per cent. Service planning should be targeted at a minimum of 5 per cent of 3–17 year-olds.
- 1.7.4 There is a need for increased policy recognition of the long-term consequences of untreated childhood conduct problems for later aspects of adjustment including: crime, mental health, physical health, parenting, employment, welfare dependence and related outcomes.
- 1.7.5 The prevention, treatment and management of childhood conduct problems should be based around a developmental perspective that recognises both the importance of early intervention and the need to provide age appropriate treatment, management and follow-through services throughout childhood and adolescence.
- 1.7.6 The development of services for the prevention, treatment and management of conduct problems needs to take into account the known co-occurrence of these problems with other behavioural and academic difficulties including attention deficit hyperactivity disorder, learning problems, mood and anxiety disorders, alcohol and substance abuse and dependence, and suicidality.

Part 2: Review of evidence on effective interventions

2.1 Introduction

- 2.1.1 This part of the report provides a summary and overview of the research evidence on effective interventions for managing and treating conduct problems. The presentation is subdivided in two major parts. The first part reviews interventions that are designed to prevent the onset of conduct problems. These interventions are typically delivered early in life and focus around home and centre-based programmes. The second part provides a review of methods for treating conduct problems.
- 2.1.2 The literature on methods for preventing, managing and treating conduct problems is voluminous and there have been large numbers of claims and counterclaims about the effectiveness of various approaches. In this review we have adopted stringent criteria for identifying effective programmes by requiring that all programmes reviewed have been evaluated by multiple randomised controlled trials (RCTs). In a randomised trial children and families are typically divided into two groups – those receiving the proposed treatment and those receiving treatment as usual. The act of randomising children and families into groups ensures that unbiased estimates of the benefits of the new treatment can be obtained. While the randomised trial is often seen as the gold standard for evaluating interventions, it is important to recognise that this methodology is not infallible (44, 45). The results of randomised trials may vary according to the client population selected, the fidelity of programme delivery, the adequacy of measurement, drop-outs from the trial and other factors (46, 47). For these reasons findings that are replicated across a series of trials conducted by different investigators in different contexts provide the most reliable evidence (6, 48, 49).
- 2.1.3 The value of RCTs in this area has been dramatically shown by evaluations of the Scared Straight programme (50, 51). In this programme young offenders were exposed to the realities of prison life in an attempt to “scare them straight”. Initial, uncontrolled evaluations of the programme provided positive reports and all participants were of the view that the programme was beneficial (52). It was only when the results of randomised trials became available that it became apparent the programme was, in fact, harmful and increased risks of crime. The Scared Straight example highlights the importance of thorough evaluation of new interventions since this example shows that not only may such interventions be ineffective and costly, they may do actual harm. These considerations suggest that it is important that interventions for conduct problems are evaluated by randomised trials.

2.2 The prevention of childhood conduct problems

- 2.2.1 There is a large literature on the risk and protective factors associated with childhood conduct problems (6, 7, 9, 53–55). One of the most robust and pervasive findings in the literature is that children who develop conduct problems frequently come from home environments characterised by multiple sources of social, economic, family and related disadvantage. These trends are well illustrated by a New Zealand study reported by Fergusson et al (56). In this study these authors examined the childhood and family backgrounds of a group of young people who had developed severe conduct problems by the age of 15. This analysis showed that the childhoods of these young people had been marked by multiple social, economic and family disadvantages. The analysis found that it was not the presence of a specific disadvantage, such as poverty, that determined adverse outcomes but rather the presence of accumulations of adverse factors. The study concluded that young people in the most disadvantaged 5 per cent of the population had rates of severe conduct problems that were more than 100 times higher than those in the most advantaged 50 per cent of the population.
- 2.2.2 Findings such as these have motivated efforts to intervene with so-called at risk populations to mitigate the effects of economic, social and family disadvantage and improve outcomes for children (57–61). These programmes are preventive rather than interventive since they are usually initiated before the onset of conduct problems in childhood. A brief review of findings from these studies is given below.

Home visiting programmes

- 2.2.3 Both within New Zealand and internationally, large investments have been made in the development of intensive home visiting programmes for families facing stress and difficulties (60, 62–69). These programmes are delivered by home visitors who aim to provide advice, assistance, support and mentorship to families. Programmes may last up to five years and aim to address a wide range of family issues including parenting and child behaviour.
- 2.2.4 Many of these programmes have been evaluated using RCTs. Reviews of this evidence (59, 60, 70) suggest the results of many home-based interventions have been disappointing and few positive effects have been found. There are, however, at least two exceptions to this trend. The first, and most impressive, is the Nurse Family Partnership (NFP) developed by Olds and his colleagues (59). The NFP provided a programme of intensive home visitation delivered by nurses to disadvantaged young mothers. Follow-up to age 15 showed that in comparison to a random control group those receiving NFP had fewer arrests, convictions and probation violations suggesting that NFP interventions mitigate risks of severe antisocial behaviours in adolescence (71). The second study to show positive benefits for child behaviours was the New Zealand-based Early Start programme. This programme has only been evaluated on participants up to three years of age. Findings up to that age

suggested that children enrolled in Early Start had fewer problem behaviours at age three (60).

- 2.2.5 The general conclusions that emerge from the literature on home visitation is that well-designed home visitation can reduce rates of conduct problems, but to be effective these programmes need to be carefully implemented and require rigorous evaluation (71).

Centre-based programmes

- 2.2.6 Centre-based programmes provide an alternative to home-based programmes. In these programmes children from at-risk backgrounds attend pre-school education centres that provide systematic programmes aimed at reducing risks of behavioural difficulties and increasing academic competence. It is important to note that such programmes should not be equated with the provision of pre-school education since centre-based programmes contain specific features aimed at mitigating childhood disadvantages.
- 2.2.7 Notable examples of the interventions include the Abercedarian programme (72, 73) and the Perry Preschool Project (74). As with home visitation, randomised trials suggest that well-designed centre-based programmes can reduce risks of longer term conduct problems. This evidence has been recently reviewed by the economist James Heckman who concludes “early interventions targeted toward disadvantaged children have much higher returns than later interventions such as reduced pupil-teacher ratios, public job training, convict rehabilitation, tuition subsidies or expenditure on police (p1902) (61).”

Concluding comments on prevention

- 2.2.8 The preceding review makes it clear that there are a number of promising approaches to the prevention of conduct problems that centre around intervention in the pre-school years. The weight of the evidence suggests that well-designed and well-implemented interventions can have substantial long-term effects in reducing risks of conduct problems and later antisocial behaviour. However, there are also a number of important warnings posted in the literature since it is clear that to be successful programmes have to be well-designed, well-delivered and well-evaluated (71). Programmes lacking these features are likely to be ineffective and wasteful.

2.3 The treatment and management of conduct problems in children and young people

- 2.3.1 Although the prevention programmes reviewed above form an important component in the prevention of conduct problems, it is clear that even after the implementation of these programmes, young people will develop conduct problems that require attention. This section reviews the evidence on programmes, treatments and approaches that have been found to be effective in the management of conduct

problems. This review is largely based on two recent reviews prepared by Church (6) and Scott (75). The review by Church was prepared from an educational standpoint whereas Scott's review was focused on the psychiatric literature. By combining the material from both reviews it is hoped to provide a comprehensive statement reflecting a consensus of thinking in both educational and health sectors on the recognition, treatment and management of conduct problems.

- 2.3.2 The review by Scott summarises the evidence on interventions for two age bands: 3–12 year-olds and 13+. However, this differs from Church's review that proposes three age bands – 3–7, 8–12 and 13+. The reasons for this division is that although programmes for 3–7 year-olds and 8–12 year-olds overlap considerably and use similar methods, the interventions for 3–7 year-olds have been found to be of greater efficacy than for 8–12 year-olds. In the interests of brevity this review combines results for both groups but it should be borne in mind that programme efficacy is typically greater for 3–7 year-olds than for the 8–12 group.

2.4 Interventions for 3-12 year-olds

Parent management training/social learning programmes

- 2.4.1 These programmes were originally designed to improve parents' behaviour management skills and the quality of the parent-child relationship. These programmes attempt to teach parents how to monitor and track child behaviour, give clear instructions, teach compliance, refocus attention from antisocial to pro-social child behaviour, attend to and reinforce appropriate behaviour, respond appropriately to antisocial behaviour (using such techniques as planned ignoring, natural consequences or time-out from reinforcement), and to anticipate and solve new child management problems (6, 38, 75–77). There are now a number of well-developed programmes based around these principles. These programmes include: the Incredible Years programme (78, 79), Triple P (80, 81), the Oregon Social Learning programme (82, 83), Parent Child Interaction Therapy (84, 85) and the Forehand and McMahon parenting skills programme (86, 87). There have now been a large number of RCTs that have shown consistent reductions in childhood conduct problems for programmes using this approach. In a summary of this literature, Church (6) notes that "parenting skills training in any of the variants described above can have a major impact, helping somewhere between 50–60 per cent of parents of young antisocial children to make the changes which are necessary to return the young antisocial child to a normal developmental pathway (p84)." While there is substantial evidence to suggest parent management programmes can produce dramatic short-term (up to six months) reductions in child behaviour problems, less has been known about the longer-term benefits of such programmes. However, research has indicated that programme benefits up to six years after treatment have been found (75).

- 2.4.2 While these programmes were originally designed to assist parents, the principles have been applied to develop analogous programmes for both teachers and children. For example, Incredible Years now includes programmes for teachers and children and a version for toddlers is under development (79).
- 2.4.3 Parent training/social learning programmes are, without doubt, among the best researched of interventions and have shown consistent benefits. Furthermore, these programmes have the advantage that, subject to adequate supervision, they can be used by a wide range of professional groups including teachers, social workers and nurses.

Classroom and school-based interventions

- 2.4.4 The classroom is an important site at which conduct problems occur and are recognised. For this reason classroom-based interventions are potentially an important part of a portfolio of interventions to manage and treat conduct problems. These interventions have been reviewed by Church who notes that there are now a series of interventions based around social learning principles (including differential attention, time-out and token reinforcement) that have been shown in single subject studies or randomised trials to reduce rates of disruptive classroom behaviours (6). These principles have been combined into a number of packaged classroom-based programmes including Programme for Academic Skills (PASS) (88, 89), Contingencies for Learning Academic and Social Skills (CLASS) (90, 91) and Reprogramming Environmental Contingencies for Effective Social Skills (RECESS) (92). For all three packages there is evidence from a series of single subject studies to support the effectiveness of these methods with programmes reporting an up to 80 per cent reduction in disruptive classroom behaviours among children targeted by the programmes (6).
- 2.4.5 In addition to the classroom-based programmes above, there have been a number of universal school-based programmes that have attempted to reduce violence and aggression in school settings (93–95). These programmes have focused on a wide age range of children from pre-school settings to secondary schools and have often been targeted at specific behaviours such as bullying. Programmes have been based on a wide range of theoretical perspectives. These perspectives include programmes that focus on individuals, interpersonal relationships, the physical and social environment and the development of social norms. These programmes have recently been reviewed by the United States Centre for Disease Control. This review concluded that “the results of this review provide strong evidence that universal school based programmes decrease rates of violent and aggressive behaviours among school-aged children. Program effects were demonstrated for all grade levels (p2) (94).” These findings clearly suggest that programmes targeted at changing school climate and environment are likely to be an important adjunct to programmes targeted at individuals with significant levels of conduct problems.

- 2.4.6 In addition to the use of school and classroom programmes, there have been many suggestions that improvements in teacher training that incorporate the principles of package programmes into classroom management practices may be effective. In a review of this issue Scott (75) notes that while this approach may have benefits, rigorous evaluations are lacking.
- 2.4.7 Parallel to the literature on parent training there is little doubt that well-designed school and classroom interventions can be beneficial in reducing rates of disruptive classroom behaviours. As with parent training, evidence on the longer-term benefits is limited. These programmes share the advantage with parent training programmes that, subject to adequate support and supervision, these programmes do not require expert clinical skills and can be delivered by classroom teachers and school administrators on the basis of relatively brief training programmes.

Child therapies

- 2.4.8 These programmes involve a number of therapist-based interventions for the treatment and management of children with conduct problems. These therapies focus on reducing aggressive behaviour, increasing pro-social interactions, eliminating cognitive distortion and negative self evaluations, reducing emotional dysregulation and lack of self control (75). A number of therapeutic approaches have been developed including cognitive behaviour therapy (CBT) and social skills therapies (77, 96–99). The most well-researched of these programmes is CBT. This approach emphasises the linkages between thoughts and action and encourages problem solving skills. A recent meta-analysis by McCart et al (96) compared the results of CBT with parent training. This review found that both CBT and parent training produce similar effect sizes. However, the benefits of these programmes varied with age, with CBT less effective with younger children and more effective with older children. These findings suggest that there is a role for therapist-based intervention such as CBT and that this role is likely to be greater with older children. These findings make considerable developmental sense and suggest that with young children the contingency-based approach of parental training is likely to be effective, but older children may benefit from more cognitively-based approaches. Nonetheless, the review by McCart et al suggests that even with younger children CBT may have some benefits.

Intervention at both home and school

- 2.4.9 Childhood conduct problems often, but not invariably, are present in multiple contexts, including at home, at school and with peers (6, 7, 98). Furthermore, it cannot be assumed that the benefits of managing conduct problems effectively at one context will transfer to another context (75). For these reasons a number of programmes have developed combined interventions that involve both home and school programmes. Typically these programmes combine components of the parenting programmes and classroom interventions described earlier. Combined

programmes include First Step to Success (100, 101), Linking Interests of Families and Teachers (LIFT) (102, 103) and a programme conducted in Montreal by Tremblay and his colleagues (104, 105). Perhaps the most ambitious intervention in this area is the Fast Track programme which is a multi-modal multi-site United States experimental programme for children with high levels of antisocial behaviour on entry to school (106). Fast Track included both school-based and parent-based components and also included universal and targeted components. In New Zealand, versions of these programmes have been developed in the Early Social Learning Project (107, 108) and Project Early (109). These New Zealand projects were not evaluated using randomised trials.

- 2.4.10 The results of randomised trials have generally found that combined programmes have greater effects than home-based or teacher-based interventions alone and Church (6) suggests that combined home and school programmes offer the best programme option.

Treatment Foster Care (TFC)

- 2.4.11 TFC is an intensive intervention that was initially developed as an alternative for residential treatment for adolescents showing severe conduct problems. Recent research has trialled TFC for younger children who have been removed from their biological families due to maltreatment or their own maladaptive behaviour. The intervention involves placement of the child in the care of specially trained foster parents who receive a high level of support and supervision. The evidence shows that TFC may be effective in improving outcomes for children (180, 181, 182), however it should also be noted that removing young children from their family of origin for the sole reason of addressing conduct problems would require significant justification and the intervention is more likely to be considered for this age group when multiple issues are being addressed.

2.5 Interventions for adolescents and young adults

- 2.5.1 In adolescence conduct problems often intensify and the greater physical/social maturity of adolescents leads to these problems having more severe consequences than conduct problems in childhood. In addition, during the teenage years young people who have previously not shown conduct problems may develop so-called adolescence limited conduct problems (9, 40, 110).
- 2.5.2 Interventions with adolescents and young adults tend to be more intensive, more expensive and less effective than interventions with younger children (6, 75). A summary of the interventions that have been found to be effective for adolescents and young adults is given below. This summary is based on the reviews provided by Church (6) and Scott (75).

Cognitive behaviour therapy (CBT)

2.5.3 As noted earlier, there is extensive evidence to suggest that CBT is effective in treating conduct problems with these treatments being most effective for older children and adolescents (96–99). These programmes, however, require specialised resources with treatment requiring a trained therapist with Master’s level qualifications. In addition, it is worthy of note that the principles underlying CBT have considerable overlap with the approaches reviewed below including multisystemic therapy (MST) and functional family therapy (FFT).

Multisystemic therapy (MST)

2.5.4 MST was developed in the United States and provides multi-faceted individual-based intervention centred on assessment of factors in the individual, the family, the school, the peer group and the community (111, 112). MST interventions are intensive and target those sub-systems which appear to be having the greatest effect in maintaining the young person’s problem behaviours. Treatment lasts about four months and is delivered by a trained Master’s level therapist who is supervised by a qualified clinician. MST has been subject to a number of United States-based evaluations that have shown that the programme has a moderate effect in reducing arrests (111). However, the extent to which the programme can be translated into other social contexts is less clear. Scott (75) notes that an attempt to apply the programme in Canada found no benefits for MST-treated youth when compared with controls. In addition, a recent Cochrane Review by Littell et al was inconsistent with an earlier review of the evidence by Henggeler et al (111, 113).

2.5.5 These considerations suggest that while MST is a theoretically well-founded programme that has produced promising results in the United States, there is a clear need to evaluate the efficacy of the programme outside of the United States. In addition it is likely the extent of programme success will be determined by the availability of adequate training for therapists and by the quality of supervision provided.

Functional Family Therapy (FFT)

2.5.6 FFT is a home-based intervention involving up to 12 one-hour sessions delivered by a trained therapist (114, 115). FFT centres on processes of engagement, motivation, behaviour change and generalisation to address problem behaviours and the family context within which these behaviours occur. The approach has a strengths-based philosophy that attempts to reduce negative family interactions and replace these with more positive responses.

2.5.7 FFT has been evaluated in a series of 10 studies (116, 117) which have suggested that the approach is moderately successful in reducing recidivism with rates being about 20–30 per cent lower than in control series (6).

Treatment foster care (TFC)

- 2.5.8 TFC is an intensive intervention that has been developed as an alternative for residential treatment for adolescents showing severe conduct problems (6, 118). The intervention involves placement of the young person in the care of specially-trained foster parents for 6–12 months. Foster parents provide a structured programme based on the provision of rewards for good conduct supplemented by weekly therapy sessions for the young person. Foster parents are intensively supervised by a full-time clinical supervisor who has a caseload of no more than 10 children (119).
- 2.5.9 This approach to treatment has been evaluated in two United States-based randomised trials that have found the intervention to have moderate to good effects in reducing further involvement in crime (6, 118).

2.6 Other issues in the management of conduct problems in childhood and adolescence

- 2.6.1 The preceding review covers the programmes and interventions for which there is good evidence for programme effectiveness. However there are a number of important issues that remain to be addressed.

The role of medication in the management of conduct problems

- 2.6.2 While there are no specific medications for the treatment of conduct problems there is evidence to suggest that medication may play a role in treatment under certain circumstances.
- 2.6.3 The best studied treatments using medications involve the use of stimulant medications (eg Ritalin; Dexedrine) for the treatment of childhood attention deficit hyperactivity disorder (ADHD). It has been well-documented that ADHD frequently co-occurs with other conduct problems (22, 41, 98, 120, 121). There is a large body of evidence to suggest that the effective treatment of ADHD with stimulant medication also leads to reductions in comorbid conduct problems (22, 75, 122, 123). However, there is no compelling evidence to suggest that treatment with stimulant medication has these advantages in the absence of ADHD (75, 122).
- 2.6.4 A second treatment that has produced promising results is treatment with antipsychotics (Risperidone). Trials have found these treatments reduce conduct problems, particularly aggression, with the benefits more marked for young people with ADHD or below average intelligence (75, 124–126). An important consideration in the prescription of anti-psychotic medication is that anti-psychotics may have serious side effects including weight gain, metabolic problems and neurological problems. For these reasons the use of anti-psychotic medication requires careful monitoring and oversight.

2.6.5 While the weight of the evidence suggests that medication may play a role in the management of conduct problems, this role is clearly secondary to and as an adjunct to the behavioural interventions reviewed previously. The provision of medication is not a substitute for well-designed interventions to address the behavioural components of conduct problems (6, 75).

Other interventions and programmes

2.6.6 The review of effective interventions has used the strong inclusion criterion that to be included as an effective intervention required evidence from at least two randomised trials showing efficacy of the intervention. However, this criterion excludes a large number of programmes and interventions that do not meet these evidential standards. A comprehensive review of these programmes and interventions is well beyond the scope of this report. However, Church (6) provides extensive comment on these issues. The existence of such interventions raises the important issue of the role of such programmes in the development of New Zealand policy.

Given that there is now a growing list of well established interventions, the committee was of the view that policy priorities and funding in the area of the treatment and management of conduct problems should focus on programmes of proven efficacy for which there was evidence from at least two randomised trials. This decision does not preclude the possibility that interventions and programmes that do not meet this stringent criterion will be shown at a later date to be effective. At that point such programmes should be included in the portfolio of policies aimed at the effective treatment of conduct problems.

2.7 Conclusions

2.7.1 Research conducted over the last 20 years has led to the development of a series of theoretically well-founded and well-evaluated interventions for the treatment, management and prevention of conduct problems in childhood and adolescence. The previous review classifies these programmes as follows:

- home and centre-based programmes targeted at improving outcomes for disadvantaged children
- parent management training and social learning programmes aimed at reducing rates of conduct problems in children prior to adolescence
- school and classroom based interventions aimed at the treatment and management of disruptive behaviours
- multi-site programmes that address problems at both home and school
- therapeutic interventions using CBT and social skills training
- MST
- FFT
- TFC.

2.7.2 These conclusions raise issues about the likely cost benefits of the programmes identified above. Although not all of the programmes identified have been subject to cost benefit evaluation, there is consistent evidence from cost benefit analyses that investment in reducing conduct problems in children and young people is highly cost effective. For example, cost benefit studies have reported that interventions such as effective home visiting, centre based programmes, parent training, FFT, MST and TFC all provide a positive return on investment (127). At the same time these cost benefit estimates need to be approached with caution since they apply to programmes developed, evaluated and costed outside of New Zealand. Thus, while the existing evidence provides a compelling case for the view that interventions for conduct problems are cost effective, it is important that these costs and benefits are evaluated within a New Zealand context as part of the process of programme development.

2.7.3 Translating this growing body of knowledge to develop a portfolio of interventions for the management of conduct problems in New Zealand involves a series of challenges. These include:

- identifying the mix of programmes that is most likely to be suitable for New Zealand given current social conditions, funding and skill resources
- devising a mix of programmes that is culturally appropriate and acceptable to Māori and other populations within New Zealand
- setting up structures to trial, implement and evaluate the efficacy and effectiveness of the proposed portfolio of interventions
- identifying the training and skill resources that will be needed to implement programmes
- integrating new programmes and interventions with existing policies, programmes, legislation and structures.

2.7.4 It was the committee's view that this process of development will involve a long-term (15–20 year) process. The present report lays the foundations for this process by describing the steps and stages for ensuring successful long-term policy development.

2.8 Policy recommendations

- 2.8.1 The minimum criteria for the selection of effective programmes for the management of conduct problems should be based on strong evidence of reduction of conduct problems provided by at least two well-conducted randomised trials and proper investment in these evaluations.
- 2.8.2 Investments in early prevention should include the development and evaluation of home visiting programmes and centre-based programmes. This investment should be proportional to the evidence for programme efficacy. Programme investment on a national level should not take place until efficacy is proved in randomised trials.
- 2.8.3 The major investment in this area should be in programmes that seek to treat and manage childhood conduct problems.
- 2.8.4 The development of programmes to treat and manage conduct problems in 3–7 year-olds should be given the highest priority in programme development, implementation and evaluation.

Part 3: From evidence to policy

The brief review in the preceding section makes it clear that there is now a range of evidence-based treatments for the management of conduct problems in childhood and adolescence. This section considers the major issues in the translation of this body of evidence to develop a portfolio of interventions for the management of conduct problems in New Zealand.

3.1 Recommended policy portfolio

3.1.1 The review in Part 2 provides a summary of the evidence on interventions for which there is strong evidence of efficacy. In this section we begin consideration of the issues involved in translating this body of evidence into a portfolio of policies suitable for the New Zealand context. This is clearly a complex task involving an assessment of the feasibility, cost benefit and acceptability of interventions in the New Zealand context. As a first step in this process the committee was of the view that it was worthwhile setting a recommended portfolio of interventions based on the evidence. This portfolio was identified on the basis of a group consensus about the types of intervention that were most likely to be effective. A summary of the committee recommendations and the reasoning underlying these recommendations is given below.

1) Prevention programmes (0–5)

3.1.2 As noted earlier there is evidence to suggest that programmes targeted at at-risk families and children may mitigate risks of later conduct problems. Two approaches were identified – home visiting and centre-based programmes.

The committee was of the opinion that further investment into home visiting programmes was justified. At the same time it was also noted that randomised trials had found the Parents as First Teachers (PAFT) programme to be ineffective (at least in the short-term) (128) and that the evaluation of the Family Start programme was both limited and not particularly promising (129). For these reasons it was felt that major investments into home visiting programmes in New Zealand should focus on rigorous evaluations of these programmes and that availability of funding should be proportional to the strength of evidence of programme efficacy.

3.1.3 New Zealand has a strong tradition of pre-school education which is now provided by a wide range of providers. However, these pre-school education institutions have not developed specific centre-based programmes targeted at disadvantaged children as has been the case in the United States. The committee was of the view that it would be worthwhile exploring the extent to which existing preschool services could serve as sites for the identification, treatment and management of pre-schoolers with severe early conduct problems.

2) Effective interventions for 3–7 year-olds

3.1.4 On the basis of the published evidence it was clear that the most promising interventions for 3–7 year-olds were social learning-based programmes targeted at improving the behaviour management skills of parents and teachers.

Four intervention options were identified:

- parent management training programmes
- teacher management training programmes
- interventions that combine both parent and teacher management training
- classroom-based programmes that lead to improved management of conduct problems in the classroom.

3.1.5 The committee was of the unanimous view that a portfolio of interventions based around these programme types was likely to provide the basis of a best practice model for the management of conduct problems in 3–7 year-olds. In addition the committee was of the view that these interventions could be strengthened if they were supplemented by child-based social learning programmes, such as the Incredible Years Dinosaur programme, and interventions targeted at changing school climate to reduce violence and aggression in the school setting.

3) Effective interventions for 8–12 year-olds

3.1.6 Five intervention options were identified:

- parent management training programmes
- teacher management training programmes
- interventions that combine both parent and teacher management training
- classroom-based interventions
- treatment foster care (TFC).

3.1.7 This portfolio of options overlaps substantially with that for 3–7 year-olds but includes the additional option of TFC. This option was added to recognise that there will be a small number of 8–12 year-olds whose behavioural disturbance is so severe that residential treatment is required.

As was the case for 3–7 year-olds, it was felt that universal school-based intervention aimed at reducing violence and aggression in school may reinforce individual programmes. In addition the committee felt that there was also a place for individual therapies such as cognitive behaviour therapy (CBT).

4) Effective Interventions for 13–17 year-olds

- 3.1.8 As young people develop, the social learning-based approaches of parents, teachers and classroom interventions decline in efficacy. This results in the programmes suitable for older children being more cognitively based, involving more intense treatment and involving multiple areas of functioning. On the basis of the evidence, the committee was of the view that six approaches to intervention with 13–17 year-olds were justified. These approaches were:
- teacher management training programmes
 - individual therapy, particularly CBT
 - multi-component (teacher-parent) interventions
 - multisystemic therapy (MST)
 - functional family therapy (FFT)
 - TFC.
- 3.1.9 In addition, the committee was of the view that universal school-based programmes aimed at reducing violence and aggression in secondary schools could provide a useful adjunct to the more targeted approaches described above.
- 3.1.10 There are several important features of these recommendations that should be borne in mind. First, the recommendations describe general classes of interventions and do not identify specific programmes. The identification of programmes will require further investigation of the pros and cons of different programmes using the same general approach. This is particularly the case for social learning programmes as there is a growing number of these programmes on the market.
- 3.1.11 The second feature of the recommendations is that, with increasing age, interventions become more intensive and expensive. This feature highlights the importance of effective early intervention to minimise the longer-term cost and consequences of childhood conduct problems.
- 3.1.12 Third, all programmes selected have been chosen because of strong evidence of efficacy on the basis of multiple randomised trials. This decision process does not imply that programmes not shown in the portfolio are ineffective or without value. Rather the judgement implies that the level of evidence for interventions not included in the portfolio was not strong enough for inclusion. With the passage of time and further research in this area, it is likely that additional interventions could become eligible for entry into the portfolio.

3.2 The role of population screening

3.2.1 An earlier report (130) proposed the development of routine screening for four year-old children and the development of systematic screening and eligibility processes across all early childhood centres and primary schools by 2012. The committee has considered these suggestions carefully and is of the view that they are not feasible within the timeframe suggested. In particular, the major priority within New Zealand is not the identification of children with conduct problems but rather the development of services to address these problems. At present the number of effective and well-evaluated programmes for managing conduct problems in New Zealand is very limited with the result that New Zealand does not have the service or workforce capacity to address an anticipated 5 per cent of referral from the 3–7 year-old population. It is recommended that the goal of developing population screening services is deferred until such time as sufficient capacity has been established to meet population level needs.

3.2.2 The committee was of the view that the best approach to both client identification and services development was to focus on the development of services within existing government agencies that have responsibilities for addressing conduct problems in children and young people. Currently, services to address issues relating to conduct problems in children and young people are provided by three government agencies.

- The Ministry of Education: This ministry provides a range of services that are administered through Group Special Education. These services span the Severe Behaviour Service, Resource Teachers: Learning and Behaviour, Parent Training, Residential Services, Alternative Education and Early Intervention.
- Ministry of Social Development (Child, Youth and Family): This agency offers a range of programmes for children and young people with behaviour that is causing serious concern and is not able to be managed by mainstream services. Services are contracted from a range of community providers. These services include residential or group home placements, MST, intensive foster care and a specialised residential unit for young males with very severe antisocial behaviour.
- The Ministry of Health: This ministry provides support and treatment for conduct problems via two main services. First, the Behaviour Support Service for people with an intellectual disability and behaviours that challenge, provides services that have a specific focus on the treatment and management of conduct problems. Second, the Child and Adolescent Mental Health Services (CAMHS) provide specialist mental health services for children and young people with mental health and behavioural disorders. While the CAMHS service does not provide treatment that specifically addresses conduct problems alone, it does provide services for those presenting with a mental health problem and comorbid conduct problems. Since many young people with conduct problems will have other disorders, the treatment of conduct problems is an important part of the services offered by CAMHS.

- 3.2.3 As will be evident from the above, the services provided by the Ministries of Education, Health and Social Development (Child, Youth and Family) are likely to provide coverage of a substantial fraction of children and young people with severe conduct problems. Furthermore, all of these agencies have an implied obligation to offer their client populations best practice treatment and management services. For these reasons, it is recommended that the first stage of developing and implementing the portfolio of interventions described earlier would be to develop, trial and implement these programmes in the context of the existing services offered by the Ministry of Education, the Ministry of Social Development (Child, Youth and Family) and the Ministry of Health.
- 3.2.4 Once an effective and well-evaluated service has been developed within these organisations, this will form a bridge-head for wider population development and dissemination of the portfolio of interventions.

3.3 Factors contributing to implementation fidelity and programme effectiveness

- 3.3.1 The identification of a portfolio of interventions with established efficacy is clearly only the first stage of the programme development process (131). A further and important stage of this process is to design effective processes for the implementation of programmes. The fidelity with which an evidence-based intervention is put in place will determine whether or not it will be effective in this context. It will also determine the impact of the programme. This issue has been described as ensuring implementation fidelity (132–134). Implementation fidelity is a determination of how well a programme is implemented in comparison to the way the programme was delivered during the randomised controlled trial (RCT) on which evidence of its effectiveness is based. Achieving effective programme fidelity requires addressing a number of challenges in adherence, exposure, quality of programme delivery and participant responsiveness (132, 135, 136).
- 3.3.2 The major challenges to programme fidelity are:
- Adherence: This refers to the extent to which the programme is being implemented according to the specification of the program as it was written or designed. Key factors influencing programme adherence will include:
 - adequate staff training
 - availability of good quality programme documentation and manuals
 - adherence to programme protocol and procedures
 - quality control and measurement of the fidelity of programme delivery
 - adequate documentation of programme delivery.

- **Exposure:** This refers to the extent to which the programme provides the client population with an appropriate duration and intensity of programme delivery. Key dimensions of programme exposure may include:
 - adequacy of programme coverage of the client population
 - the number of programme sessions delivered
 - the duration of programme delivery
 - the match between programme content and delivery and client needs, culture and background.
- **Quality of programme delivery:** This refers to the manner in which the programme is delivered by programme staff. Key dimensions of the quality of programme delivery include:
 - the clarity and detail of programme manuals which staff use in delivery
 - the availability of close supervision of staff delivering the programmes
 - the enthusiasm of staff for the programme
 - staff attitudes, values and skills in delivering the programme
 - adequate preparation and monitoring of staff in delivering the programme
 - staff adherence to protocols and staff competence in delivery.
- **Participant responsiveness:** This refers to the extent to which participants are engaged by, and involved in, the activities and content of the programme. Factors influencing participant responsiveness will include:
 - the cultural appropriateness of the programme for the client
 - the acceptability of the referral process (compulsory/voluntary) to the client
 - the quality of the therapeutic relationship between the client and the programme delivery staff
 - the presence of physical, personal or social barriers that influence the client's ability to participate in the programme
 - accurate identification of client population
 - client attitudes and values regarding the value of intervention.

3.3.3 Each of these factors relating to the process of programme implementation will combine to determine programme success quite independently of the theoretical justification and evidence of programme efficacy (132, 134). A necessary but not sufficient condition for the success of any programme is that there are high levels of adherence to the programme protocols, clients receive an appropriate duration and intensity of service delivery, the programme is delivered in an effective and professional way and that the programme is delivered in such a way to maintain client engagement and minimise programme drop-outs (132, 135). These are a demanding set of conditions and research has shown repeatedly that the failure of many well-designed programmes to be effective once transplanted has been due to failures in implementation fidelity rather than to shortcomings in the original

design and conceptualisation of the intervention (132, 137). For these reasons, it is important that evaluation designs include adequate consideration, planning and assessment of implementation fidelity.

- 3.3.4 The breadth and magnitude of the burden associated with conduct problems emphasises the need for effective preventive and intervention programmes. It is to be expected that people will vary in how they respond to these interventions (as is the case for many chronic diseases). The benefits a child with conduct problems will derive from an intervention will depend upon both the nature and severity of their problems, and must be tempered by the fact that those most in need tend to be the most difficult to engage in treatment, and the first to drop out (138). Although moderate to large intervention effects have been reported for several of the programmes described, this should not be taken to mean that the majority of children enrolled in these programmes end up problem-free. A more realistic expectation is that some children will benefit to the extent that their conduct problems all but disappear, while some will experience a significant reduction in problems, whereas others may obtain smaller benefits such that the course of their problems does not worsen over time. Thus, it is reasonable to expect significant and meaningful changes in many but not all cases, but only if well-validated, proven interventions are applied systematically. Conservative cost-benefit analyses by economists, where these have been done, support the value of such interventions (139).

3.4 The management of comorbid or associated childhood and adolescent problems

- 3.4.1 As noted earlier (section 1.5) a feature of childhood conduct problems is that these problems do not occur in isolation – young people will often have other difficulties that co-occur with conduct problems (3, 25, 26, 41, 42). During early childhood and the middle school years those with conduct problems will have increased risks of attention deficit hyperactivity disorder (ADHD), learning difficulties, childhood anxiety disorders and childhood depression. In adolescence this pattern of co-occurring problems increases dramatically to include increased risks of alcohol and substance abuse behaviours, suicidal behaviours, major depression, teen pregnancy and related problems. While some of the increased risks seen among young people with conduct problems may be secondary consequences of conduct problems, it is unlikely that there is a simple uni-directional relationship between conduct problems and other childhood difficulties. A more likely explanation is that, on the one hand, conduct problems increase risks of other childhood and adolescent difficulties, while on the other, the development of these co-occurring difficulties may exacerbate conduct problems. This is particularly likely to occur with alcohol and substance abuse problems (3, 140).

3.4.2 For these reasons it is important that the management of conduct problems is not developed in isolation from the management of a wide range of child and adolescent difficulties that frequently co-occur with conduct problems. This requires that the strategies for managing conduct problems are embedded in a wider infrastructure of services equipped to provide best practice management of common childhood and adolescent difficulties.

3.5 Prevention science and policy development

3.5.1 One of the important lessons that has been learned in the development of childhood behavioural programmes is that it is not good practice to take existing programmes and interventions and transplant these into a new setting without thoroughly evaluating the efficacy of the programme in the new setting. There is considerable evidence from the literature to show that programmes that are transplanted to new contexts without evaluation frequently fail to achieve the promised results (71, 132, 141).

3.5.2 A clear example of these difficulties was provided in the discussion of MST, which was found to be effective within the United States but with these results not being found in Canada (75). For these reasons the committee was of the view that any attempts to introduce new or enhanced services should proceed slowly and with the use of thorough evaluation methods.

3.5.3 The emerging field of prevention science has now developed an account of the processes that should be followed to introduce a new intervention or programme (71, 142). These principles can readily be adapted to the task of translating an existing programme with known efficacy and effectiveness into a new social setting. This translation requires the following stages of programme development:

- Adaptation of programme to new context to ensure the feasibility and acceptability of the programme to the new context. This stage will usually require consultation with consumers and service providers about the acceptability and appropriateness of the programme for the client population and service providers. In a New Zealand context, designing inclusive services that are acceptable to Māori and other populations will be a vital component of this stage of development.
- Pilot studies to develop provider skills and examine the feasibility and potential benefits of the programme for the client population.
- RCTs comparing those receiving the new programme with a control series not receiving the existing services.
- Use of the results from randomised trials to conduct formative research to improve the intervention model.
- Population dissemination of the treatment model.

- 3.5.4 These processes require a lengthy period of service development but they also ensure that new programmes are well-evaluated and, importantly, they avoid wasteful expenditure on programmes that may not be effective.
- 3.5.5 The committee was of the view that all major investments in the prevention, treatment and management of conduct problems should be subject to this rigorous process of development and evaluation to ensure that any new programmes introduced are well-evaluated and effective.

3.6 Policy recommendations

- 3.6.1 The recommended portfolio of programmes to treat and manage conduct problems is shown in Table 3.1.
- 3.6.2 The use of population screening methods to identify children with conduct problems should not proceed until adequate services have been developed to treat and manage these problems.
- 3.6.3 In the first instance, the development of new services should occur in a co-ordinated way within existing government services provided by the Ministry of Social Development (Child, Youth and Family), the Ministry of Education and the Ministry of Health.
- 3.6.4 The importance of maintaining programme fidelity should be recognised at all stages of the selection, development, implementation and evaluation of new services. A specialist advisory group should be established to ensure this takes place.
- 3.6.5 Effective cultural consultation should take place at all stages of the development, implementation and evaluation of new services.
- 3.6.6 The development of all new services should use a prevention science approach that involves adequate pilot studies to ensure cultural acceptability, programme fidelity and client acceptability, and randomised trials to assess programme efficacy.
- 3.6.7 It should be accepted by all involved that the development of effective systems for the prevention, treatment and management of conduct problems is a long term (15–20 year) process and that quick-fix solutions are unlikely to be effective and may divert resources from long-term planning and development.

Table 3.1: Recommended portfolio of interventions for the treatment and management of conduct problems

Intervention	Age		
	3-7	8-12	13-17
Parent Management Training	✓	✓	–
Teacher Management Training	✓	✓	✓
Combined Parent/Teacher Programmes	✓	✓	–
Classroom-based Intervention	✓	✓	–
Cognitive Behaviour Therapy	–	✓	✓
Multi-modal Interventions			
Multisystemic Therapy	–	✓	✓
Functional Family Therapy	–	✓	✓
Treatment Foster Care	–	✓	✓

Part 4: Cultural issues

4.1 Te Ao Māori view of conduct problems

Te Roopu Kaitiaki membership

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Child and Adolescent Psychiatrist, He Kakano, Whirinaki Child, Adolescent Mental Health Service, Counties Manukau DHB and Hauora Waikato and providing neuropsychiatric assessment and treatment for ACC

Mere Berryman
Manager, Poutama Pounamu Educational Research Centre

Peta Ruha
Programme Manager, Lower North Severe Conduct Disorder Programme

- 4.1.1 In line with the Advisory Group on Conduct Problems' recommendation, Te Roopu Kaitiaki has been established to provide a Te Ao Māori view on conduct problems. Te Roopu Kaitiaki is charged with providing advice and recommendations to the Advisory Group on Conduct Problems on responsiveness of generic services to Māori and secondly, kaupapa Māori responses that draw on indigenous knowledge, experiences and practices to effect behavioural change in Māori tamariki, taiohi and whānau experiencing conduct problems. This section provides a Māori world view on the considerations required for general services responsiveness.
- 4.1.2 A separate report outlining principles of developing kaupapa Māori responses for Māori tamariki, taiohi and whānau experiencing conduct problems will be developed by Te Roopu Kaitiaki.
- 4.1.3 Contemporary research and investigation has clearly identified colonisation and alienation from land as having had a significant impact on the wellbeing of Māori in Aotearoa/New Zealand as with many other indigenous cultures around the world. Wellbeing is driven by economic, social and health determinants. Māori consistently fare badly in population surveys measuring wellbeing. This provides significant concern in reference to the social factors that impact on the development of conduct problems for Māori tamariki and taiohi as discussed in section 1.3 of this report.

4.1.4 The conceptualisation of conduct problems as a dimensional variable rather than a diagnostic classification raises issues about behavioural thresholds within different cultural contexts to determine appropriate behavioural interventions. After considering the data on the prevalence of serious conduct problems from a series of New Zealand studies, Te Roopu Kaitiaki was of the view that, at any point in time, 15–20 per cent of Māori tamariki and taiohi will display conduct problems of sufficient severity to merit intervention (see table 4.1). Most (approximately 75 per cent) will be male. On the basis of these estimates, Te Roopu Kaitiaki recommends that conduct problem services need to be developed and resourced to reach a minimum of 15 per cent of the Māori tamariki and taiohi population.

Table 4.1: Relationships between ethnicity, age and risks of conduct problems

Age	Ethnicity		
	Māori	Non-Māori	Risk Ratio
8 years	15.0%	9.8%	1.53
15 years	22.2%	8.9%	2.49

Fergusson, 2008 (143)

4.1.5 Te Roopu Kaitiaki strongly advocates given the prevalence data, that all programmes undertaken in Aotearoa/New Zealand have a clear responsiveness structure that ensures cultural acceptability for Māori. International research clearly identifies that a cultural fit is a key consideration for any programme to increase the success factors, as identified by DeGarmo and Martinez (144).

Evidence

4.1.6 The role that evidence plays in current conduct problem policy formulation and development of programmes is significant. Te Roopu Kaitiaki supports the evidence-based approach due to the generalisability of components of the international evidence to actively addressing the issues of conduct problems in Aotearoa/New Zealand.

4.1.7 In parallel, Te Roopu Kaitiaki operates from the platform that indigenous knowledge is a legitimate contribution to the suite of evidence in understanding and working with Māori tamariki, taiohi and whānau. Failure to consider Māori knowledge in this process will dilute the effectiveness of any programme instigated with Māori tamariki, taiohi and whānau.

4.1.8 It is important that Māori knowledge is recognised as a layer of evidence and is considered as part of the entire evidence base around being responsive to Māori tamariki, taiohi and whānau experiencing conduct problems. The inclusion of Māori knowledge does not diminish the use of randomised controlled trial (RCT)-based evidence because it has a different construct of testing for reliability from a Western paradigm.

Programme principles

- 4.1.9 There is significant recognition and appreciation of the importance of culture in generating wellbeing. This increase in appreciation has driven the need for dual clinical and cultural competencies. Effective clinical practice for Māori is dependent on a workforce that is committed to best outcomes for Māori, based on internationally-recognised clinical and professional standards that are underpinned by Māori values, concepts of wellbeing and approaches to community.
- 4.1.10 Culturally relevant best practice must incorporate a clear understanding of the importance of whānau in the intervention logic and programme process. It is the view of Te Roopu Kaitiaki that Māori require the integration of clinical, cultural and social dimensions of interventions to achieve effective outcomes. For Māori this requires a whānau ora approach to any intervention or programme design. Whānau ora is about supporting Māori families to achieve their maximum health and wellbeing. This means that conduct problem interventions for Māori must be aimed at working with the whānau, rather than just tamariki or taiohi. This requires delivery of conduct problem interventions to promote collective ownership, shared values, recognition of the authority of elders and reinforcement of positive whānau values (145).
- 4.1.11 A recent stocktake undertaken by Ramage et al in 2005 (146) identified access barriers for Māori to Child and Adolescent Mental Health Services (CAMHS). It is also the view of Te Roopu Kaitiaki that these barriers are generalisable for Māori tamariki, taiohi and whānau with conduct problems. The barriers include:
- whānau lack of knowledge of services
 - lack of services and specialised staff
 - stigma of being referred to mental health services
 - restrictive criteria for referral/acceptance
 - lengthy delay in response to referrals
 - lengthy waiting times to get into services
 - lengthy assessment processes
 - costs to clients
 - lack of feedback/communication to referring professionals and clients (146).
- 4.1.12 The following principles of best practice in working with Māori tamariki, taiohi and whānau have been adapted from key considerations discussed in Whakarato Whānau Ora (147):
- Support the development of a secure and positive cultural identity.
 - Facilitate cultural matching between whānau and programme deliverer.
 - Reinforce being Māori through the re-establishment of links with whānau and Māori communities where Māori values, beliefs and practices are the norm.
 - Actively assist applied practice of tikanga Māori and Māori models of wellbeing.

- A comprehensive assessment process that integrates cultural, clinical, educational and social dimensions.
- Increase Māori participation in the planning and delivery of conduct problem programmes.
- Promote the ongoing development of the Māori workforce.
- Demonstrate whānau-inclusive practice.
- Promote the development of personalised treatment plans that address cultural, clinical and whānau needs. These treatment plans must also be able to measure changes in whānau wellbeing for ongoing enhancement of treatment options to ensure successful outcomes.

4.1.13 Greatest effect will be achieved when these principles are fully integrated into conduct problem programme design, development and delivery. Adhering to these principles will assist in evolving a culturally relevant and effective response to tamariki, taiohi and whānau experiencing the effects of conduct problems.

4.2 Policy recommendations for Māori

Generic programmes

- 4.2.1 The prevalence of conduct problems in the Māori child population is estimated to be 20 per cent. Service planning should be targeted to a minimum of 15 per cent of Māori 3–17 year-olds.
- 4.2.2 Effective cultural consultation and participation by Māori should take place at all stages of the development and evaluation of new services under the Treaty-based relationship described in section 1.2.

Te Ao Māori programmes

- 4.2.3 The evidence-based approach needs to recognise indigenous knowledge and experience as a valid contribution to the analysis and critique of programmes for conduct problems.
- 4.2.4 A major investment is required to support the gathering and analysis of evidence from a Te Ao Māori context to sit as part of the evidence base in Aotearoa/ New Zealand to fully inform the delivery of effective programmes for conduct problems.
- 4.2.5 Effective cultural consultation and participation by Māori should take place at all stages of the development and evaluation of new services under the Treaty-based relationship described in section 1.2.

4.3 Pacific peoples and conduct problems

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4.3.1 The population of New Zealand Pacific peoples is one of the fastest growing, making up 6.6 per cent of the total population. The growth in the population of children and young people under 15 years old has been particularly high (148). Pacific children and young people make up half of the population group and are increasingly heterogeneous (149). Pacific peoples are over-represented in many adverse health and social statistics (150–152). Pacific families are also more likely than other New Zealanders to be economically disadvantaged with lower household income, higher rates of unemployment and poor quality overcrowded housing (150–152).

Poorer health and education outcomes may also reflect, in part, the differential access to and utilisation of education, health and social services (151).

Pacific children are less likely to be enrolled in pre-school education than other New Zealand children, and Pacific young people are more likely to leave secondary school without a formal qualification (153). Pacific parents are also far less likely to be involved with their child's schooling or education (149).

Pacific peoples and conduct problems

4.3.2 It is clear from research on other populations that conduct problems cast a long shadow on the life course (6) of a child, young person and their families/communities. While conduct disorder prevalence rates for Pacific peoples are not known, anecdotal reports indicate that conduct problems are a significant issue for an increasing number of Pacific children, young people and their families/communities. Research already confirms a strong correlation between socio-economic disparity and disadvantage (54). This gives confidence that there are higher rates of conduct problems in Pacific children and young people. To fail to respond to these concerns will have far reaching consequences for the wellbeing of Pacific peoples and their communities.

4.3.3 There is some data on the prevalence of mental health problems in adult Pacific peoples through the *New Zealand Mental Health Survey – Te Rau Hinengaro* (2). This report concluded that the prevalence of disorder in any period is higher for Māori and Pacific peoples than for other composite ethnic groups. The report particularly noted that much of this burden appears to be because of the youthfulness of the Māori and Pacific populations and their relative socio-economic disadvantage. Previous to this report, a reliance on hospital admission data had led to the view that Pacific peoples experienced lower rates of mental illness compared with other New Zealanders. The *Youth 2000 Survey* did not look specifically at conduct problems but did indicate higher rates of depressive symptoms in Pacific young peoples compared with European (149). As a proxy measure of conduct problems, the same survey also found Pacific young peoples were more than twice

as likely to have been suspended from school in the preceding year as European young people.

- 4.3.4 There is less information on behavioural problems in younger Pacific children. The Pacific Islands Families Longitudinal Study found prevalence rates in two year-olds of 6.6 per cent in the clinical range and 13.7 per cent in the borderline range for externalising behaviour problems (154). With the narrow-band syndromes, 1.4 per cent of the two year-olds had aggressive problems in the clinical range and a further 6.2 per cent in the borderline range. There is some evidence that externalising problems are stable over time (155). This suggests that a significant percentage of these Pacific pre-school children will continue to have similar behaviour problems in the school age group if no therapeutic interventions are explored.
- 4.3.5 Recognition of conduct problems as being an issue needing prevention or intervention is influenced by the socio-cultural constructs and values in the increasingly diverse communities of Pacific peoples, both New Zealand and Pacific Island-born. Numerous barriers face Pacific peoples in accessing prevention and intervention programmes. Ensuring accessible and appropriate services for Pacific peoples is one of the three priority objectives for the *New Zealand Health Strategy* (156). Similarly in the Ministry of Education, the provision of services appropriate to Pacific peoples together with community engagement is seen as an ongoing priority (2). The Ministry of Social Development outcomes framework also prioritises the need to assist groups which experience disadvantage, including Pacific peoples, and to help these groups realise their potential.

Cultural competence

- 4.3.6 To improve outcomes for Pacific peoples and reduce inequalities there needs to be attention to both cultural competence of generic services and the development of Pacific specific services and workforce (157, 158). There is good evidence that culturally competent care adds value to the health care system by improving access, outcomes and client satisfaction (159).
- 4.3.7 A recent review of Pacific cultural competence (157) describes necessary features of culturally competent care. Along with assuring a patient's trust, cultural competence requires that Pacific peoples' knowledge and realities are considered valid and significant. Acculturation is also a consideration in developing services for Pacific peoples, with varying health outcomes and perceptions of health issues with differing degrees of cultural alignment (160).
- 4.3.8 In considering mental health or behavioural programme efficacy for Pacific peoples, particular issues arise around measuring access and cultural competence as a determinant of clinical effectiveness. With CAMHS there has been increasing access by Pacific children and young peoples in some regions over the years. However, access rates still fall behind those of non-Pacific ethnicities. Barriers contributing to this reduced access include a lack of culturally appropriate resources, services and specialists (146).

- 4.3.9 Much has been written on appropriate models of mental health care for Pacific peoples (161, 162). There are also numerous policy documents recommending services designed for Pacific peoples must be responsive to their needs and have involvement of Pacific staff in their delivery (163, 164). Similarly, the Health Practitioners Competence Assurance Act 2003 (165) requires that professional registration bodies set standards not only of clinical and ethical competence, but cultural competence for their members.
- 4.3.10 It is proposed by the AGCP that conduct problem intervention programmes should be placed within existing government health, social and education services. The need for these generic services to develop cultural competence in delivering services to Pacific peoples is critical to ensuring effective outcomes.
- 4.3.11 There is some evidence internationally that minority young people with behaviour or delinquency problems experience poorer mental health care and are treated differently by generic systems (166). Minority youth are also more likely than others with similar delinquent behaviour to end up in the juvenile justice system rather than youth mental health services (167). Providing services responsive to issues of culture and ethnicity is recognised as a priority in achieving effectiveness in programmes for children and young people with serious emotional disturbances (168).
- 4.3.12 While the concept of cultural competence has permeated health, education and social services in New Zealand for some time and efforts have been made to improve the systems of treatment and care for Pacific children and their families, significant barriers to access, quality and positive outcomes still remain. Striking disparities in health, social and educational outcomes persist. Some of these barriers are common to other New Zealanders and include fragmentation of care, and social and self stigma associated with mental illness or behavioural problems. Additional barriers for Pacific peoples include mistrust and fear of treatment, different cultural conceptualisations of illness/health and behaviour, differences in language and communication patterns, and racism and discrimination at the personal and institutional levels.
- 4.3.13 Culture is critical in determining how people express and report their concerns, how they seek help, what they develop in terms of coping styles and social supports and the degree to which they attach stigma to behaviour problems. Pacific cultural competence is the ability of an organisation or individual to understand and appropriately apply cultural values and practices that underpin Pacific peoples' world views and perspectives (169). It has also been defined as the ability to integrate Pacific values, principles, structures, attitudes and practices into the care and delivery of services to Pacific service users and their communities (159).

- 4.3.14 There are pockets of innovation in both the health and education sector with culturally competent services contributing to positive outcomes for Pacific peoples. However, we need a broader cross-system commitment to cultural competency for Pacific peoples to ensure equitable good outcomes.
- 4.3.15 With the competing multiple health, social, educational and economic problems facing Pacific peoples, making an issue such as conduct problems a priority for our community will be difficult. The challenge will be to persuade both Pacific communities and professionals of the importance of addressing conduct problems in children and the need to devote resources and effort to effective prevention and treatment relative to other priorities such as educational achievement. Concurrent with this will be the need to ensure cultural competence in current and proposed interventions and services.

4.4 Policy recommendations for Pacific peoples

- 4.4.1 Generic services for conduct problems in the Ministries of Health, Education and Social Development (Child, Youth and Family) should be culturally competent for Pacific children, youth and their families. These services will need to have a Pacific specific service delivery plan which is adequately funded with clear deliverables.
- 4.4.2 Pacific workforce development in services provided by the Ministries of Health, Education and Social Development (Child, Youth and Family) should be supported at all levels to enable that competence.
- 4.4.3 Engagement with the Pacific peoples' community of New Zealand needs to occur to raise the awareness of conduct problems, and the need for early intervention and prevention.

4.5 Asian peoples and conduct problems

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(Master's candidate [research thesis submitted])
Psychology graduate, experience in supporting children with disability

- 4.5.1 According to Statistics New Zealand (170), 6.6 per cent of usually resident population in 2001 self-identified themselves as of Asian origin compared with 3 per cent in 1991. In 2006 the New Zealand Asian community totalled 9.2 per cent (354,552). By 2021 it is estimated that the Asian population will reach 670,000 (171). The number of Asian children aged 0–14 has nearly doubled from 27,717 in 1991 to 55,983 in 2001, and it is projected to more than double to 137,000 by 2021 (171). Asian children, both locally-born and migrants, therefore form a significant part of the New Zealand population. New Zealand Asian communities are a diverse and complex group with a range of health issues identified by Rasanathan, Ameratunga, and Tse (172).
- 4.5.2 There are very few conduct problems intervention programmes targeting Asian children or families. One of the studies in this area is the work by Reid, Webster-Stratton and Beauchaine (173). This project involved assessing the effectiveness of the Incredible Years parenting programme among African American, Asian American, Caucasian and Hispanic mothers. The researchers found that the programme setting was acceptable and helpful to different ethnicities. The major foci of the programme were to strengthen parent competencies, foster parents' involvement with school, reduce children's problematic behaviours and strengthen children's emotional regulations and social and academic competencies. The techniques used to achieve the goals stated above included child-direct play skills, positive discipline strategies, strategies for coping with stress, and methods to strengthen children's pro-social and social skills. Parents' individual goals for their children were identified and these were also incorporated into the programme for fostering cultural sensitivity. In general, parents of all ethnic groups rated 'praise' from effective parenting skills as a most useful tool to modify children's behaviours, but Asian parents rated other techniques such as commands, rewards, time-out, ignoring the child and play as less useful. Furthermore, other than parenting classes and group discussions, Asian mothers also requested future courses on issues including kindergarten programmes

and anger management. It is apparent from these results that while the programme valued parents' individual goals and culture, other subtle issues relating to Asian parents' actual needs and agreement on a range of parenting techniques were not carefully considered.

4.5.3 Due to varying social and cultural norms of different ethnic groups, careful consideration is required when applying overseas research findings, for example from the United States, to Asian migrant audiences within diverse social contexts in New Zealand. In addition, certain programme principles and methodologies are not applicable due to the following major concerns, which can be categorised into six key areas:

- diagnoses/concepts of conduct problems
- parents
- children
- teachers
- health professionals
- service accessibility.

Diagnoses/concepts of conduct problems

4.5.4 With regard to the diagnosis of conduct problems, the stereotypical views of Asians as model citizens held by New Zealanders contributes to issues of under-diagnoses. Other potential diagnostic problems dwell in the shortage of Asian research on culturally acceptable assessments. Another key concern related to assessment is that social norms and interpretations of acceptable or maladaptive behavioural patterns are recognised differently by various ethnicities, hence cultural considerations are required in the application of diagnostic terms/labels. For instance, hyperactivity is considered quite differently in Korea and in Taiwan. While it is acceptable for young boys to be active in Korea, such a behavioural pattern may be considered naughty and undisciplined in Taiwan.

Parents

4.5.5 Children's behavioural patterns are often affected by the level of stress and state of psychological wellbeing experienced by their parents. Recent Asian migrant parents are particularly vulnerable to stress due to the following reasons:

- Asian families often experience post-migration adjustment difficulties, for example, finding suitable employment, rebuilding social networks and acculturation stress. The process of acculturation occurs at a different rate for adults and children, for example, young children may master the host country language skills faster than their parents (174). In addition, children and young people get more chances for exposure to the mainstream culture due to schooling. This may produce (or compound already existing) conflict

between parents and children, leading to an excess of difficulties within family relationships, such as reduced positive affective displays from parents to children and vice versa, that may then result in further behavioural and social problems. Disharmony within families and parental aggression are risk factors for conduct problems that need to be acknowledged as well.

- In addition, lack of social support and practical help from the extended family puts parents in very stressful situations. In some cases, unfamiliarity with and misunderstandings of the health and education system in the host country cause parents to blame the school system and teachers for problems experienced by the family.
- There are many Asian families where parents are separated in different countries (the so-called satellite families) that are encountering numerous challenges in maintaining the marriage relationship and raising young children. Compounded with the issues discussed above, this may have two major implications – satellite families with a child affected by conduct problems will often demand a higher level of professional support, and the stress level in some satellite families may make the child more prone to developing problematic behaviours at home and school.
- A recent report by the Human Rights Commission (175) states that Asians are still subject to racial discrimination in New Zealand despite its apparent reduced tendency. The report identified employment difficulties and racial harassment as the main factors behind migrants' complaints. Such negative experiences may impede Asian migrants' adaptation to the host country and affect psychological and physical wellbeing. In addition, it is likely that such adversity experienced by migrant parents may cause discontent and withdrawal from New Zealand society, resulting in decreased opportunities for them to access appropriate support networks and seek assistance for their family and children.
- Asian families have a tendency to avoid seeking professional help as they consider mental health problems in general, including conduct problems, as disgraceful, a loss of face and bringing shame upon both the immediate and extended family, and those associated by marriage or close friendships. Due to fears that their children might be labelled as dangerous or violent, Asian parents often delay seeking or avoid necessary interventions for children. In some cases Asian parents do not seek professional help simply because they have neither the knowledge nor the confidence to access and navigate through the health care and social services system.

4.5.6 Interventions for Asian parents should therefore focus on building peer support and educational programmes on the nature of conduct problems and where families can seek help. The delivery for this education is suggested to take place in non-threatening or non-stigmatising environments such as schools. Parents may feel uncomfortable with clinical settings whereas school settings are not only relevant to their lives, but also enable the parents to gain a better understanding of New Zealand schools.

It is important that health professionals take time to understand parents' concerns and what parents consider as helpful in supporting the child with conduct problems. Sometimes, Asian parents may prefer dietary treatments, traditional healers or spiritual methods to Western interventions. Where necessary, individual work with parents may be required to explain a range of intervention and support options and reinforce the importance of adhering to intervention regimes at home.

Children

- 4.5.7 Most prevention and intervention programmes for children with conduct problems take place at home and in school settings. Interventions should also take into consideration the process of adaptation to the new environment adopted by children and the development of their identities. In order to implement appropriate interventions for children with conduct problems, professionals need to have a sound understanding of the development of cultural identities, experiences of racism or marginalisation, and provide adequate guidance accordingly.
- 4.5.8 Interventions for Asian children should focus on their cultural identities and causes of their disruptive behaviours. Most current programmes focus on children's behaviour and tend to overlook social and psychological development in relation to immigration. While it is acknowledged conflicts due to immigration stress may arise between children and parents, affective displays should be supported and encouraged among children by parents (176). In addition, according to different acculturation stages proposed by Berry (177) – assimilation, separation, integration, and marginalisation – it is important to treat each child as a unique individual.

Teachers

- 4.5.9 When working with this population, teachers need to increase their awareness of the issues facing children and their families from culturally and linguistically diverse backgrounds, particularly with regards to the teacher's own attitudes, behaviours and stereotypes they may adhere to. Racial discrimination may occur among children, therefore it is important that teachers play a role in monitoring and supervising the conduct of all students. While some teachers report limited resources and assisting personnel, extra support from the government, such as culturally competent teacher aides, may be useful to assist ongoing monitoring and allow extra time to build trust between parents and teachers.

4.5.10 The incorporation of Asian cultural competence training for teachers is highly recommended. Broadly speaking, cultural competence training focuses on:

- cultural awareness, which describes the process of becoming sensitive to interaction with other cultures
- cultural knowledge, which is the process in which professionals obtain a sound educational foundation concerning the various world views of cultures
- cultural skills, which involves learning how to implement culturally-appropriate assessments and interventions (178).

Health professionals

4.5.11 Health professionals who work with children with conduct problems include child psychotherapists, occupational therapists, counsellors, medical practitioners, social workers and psychologists. Firstly, it is recommended that health professionals participate in cultural competence training with regard to working with children and families of Asian descent. There are existing Māori and Pacific cultural frameworks one can refer to when designing modules specifically for working with Asian families. Secondly, adequate cultural supervision should be available to these professionals. Thirdly, an Asian expert advisory panel can be formed to provide specialist inputs to practitioners for better conduct problem interventions and the development of new services and relevant policies.

Service accessibility

4.5.12 Asian migrants often encounter various barriers impeding their ability to seek help from health and social services, such as shame, embarrassment, lack of knowledge, mistrust in New Zealand health systems, language difficulties and lack of support (179). In order to increase Asian people's accessibility to health and social services, service information can be printed in Asian languages, for example pamphlets or school newsletters. Other related strategies should focus on improving the service itself, such as providing credible interpreter assistance, culturally competent workers that can provide assistance and flexible working hours to accommodate parents who are working.

Summary

4.5.13 Socio-cultural, developmental and psychological issues need to be also considered alongside any behavioural intervention to ameliorate children's maladaptive behaviours or parenting styles. Apart from the focus on children, the involvement of parents, teachers and health professionals is paramount. Furthermore, given the continued growth of the New Zealand Asian population and the relative paucity of research on conduct problems, it is a matter of priority to conduct systematic research on Asian migrants and children with various forms of behavioural problems.

4.6 Policy recommendations for Asian peoples

- 4.6.1 A socio-cultural, developmental, psychological perspective needs to be considered in conduct problem prevention and intervention for Asian children and their families.
- 4.6.2 Teachers and health professionals need to participate in cultural competence training with regard to working with children and families of Asian descent.
- 4.6.3 Careful consideration should be required when applying overseas research findings to Asian migrant audiences within diverse social contexts in New Zealand.
- 4.6.4 Issues associated with the post-migration adjustment process need to be taken into account throughout the planning and implementation phase of intervention with recently migrated Asian children as well as their parents.
- 4.6.5 Asian experts should continue to provide specialist input to the development of new services and relevant conduct problem policies as part of the implementation of the *Inter-agency Plan for Conduct Disorder/Severe Antisocial Behaviour 2007–2012*.

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

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

