



CENTRE FOR
Community
Child Health

Behaviour Problems

Practice Resource

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Practice Resource: Behaviour Problems

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Introduction

There is now a large amount of research evidence about the importance of the early years. Many professionals are unsure about how this evidence impacts on the services they provide for families and their professional practice.

The Centre for Community Child Health has therefore developed eleven "*Practice Resources*". Each *Practice Resource* provides professionals with:

- an introduction to the topic
- a summary of the latest research, and
- practical strategies to support their daily work with young children and their families.

These *Practice Resources* will help professionals consider and understand the issues and the range of researched options and strategies available to discuss with parents and carers in addressing their concerns and increasing their confidence. They will also support management to make sensible decisions about the use of resources and directions for services to address important issues for children.

The project to develop these eleven *Practice Resources* has been made possible through funding from the Telstra Foundation.

See Appendix 1 and 2 for more details about the Centre for Community Child Health and the Telstra Foundation respectively.

Why were *Practice Resources* developed?

The *Practice Resources* have been designed to bridge the gap between research and practice. Most professionals do not have the time to sift through and interpret the relevant research that can inform how they work with children and families, nor do they have access or opportunity to attend relevant professional development.

The aim of the *Practice Resources* is to broadly translate the research evidence on a number of important topics into easily understood practical information that can be readily used by a range of professionals, assisting their daily work with young children and their families.

While each resource is written for professionals working with children and families, the information will also be useful to managers of services.

What is the structure of each Practice Resource?

These resources are designed to be easy to use and inform professional practice. The structure of the *Practice Resources* enables access to information at different levels of detail depending on the user's needs.

Each resource has the following structure:

- **Glossary**
Definitions of key terms.
- **Section 1: Introduction**
This includes definitions, how frequently problems occur, information about normal development (where relevant), effects of the problem, and whether the focus should be on promotion, prevention, or early intervention.
- **Section 2: What works?**
This includes a simple summary of the research and outlines what works and therefore the strategies that should be implemented. Whilst this section is brief, strategies are sufficiently detailed and specific for action. To support the professional there is also:
 - **Parent information:** Pointers to existing web based parent information are provided. This information has been reviewed to ensure the messages are consistent with those in the resource.
 - **Key messages:** A single page summary is provided outlining the most important messages for professionals and managers.
- **Section 3: What the research shows**
Annotated summary tables of the research evidence and intervention studies is included, with information provided about the level of evidence, see Appendix 4. Also included are the more detailed key research principles that are fully referenced.
- **References**
All references used to inform the resource are listed.

To make these *Practice Resources* easy for professionals to access and use, references are not included within "Section 1: Introduction" and "Section 2: What Works". In "Section 3: What the research shows" references are included in the text. A full list of the references relevant to each topic can be found separately in the References section.

Overview

What topics are covered?

Promotion

- Breastfeeding
- Literacy

Prevention

- Injury
- Overweight and obesity
- Smoking during pregnancy
- Passive smoking effects on children
- Child and adolescent smoking

Early Intervention

- Language
- Settling and sleep
- Behaviour
- Eating behaviour

How were the topics selected?

A number of criteria were used to select topics. These included:

- The importance of the issue in relation to children's health and development
- Requests from professionals
- Expression of need from communities
- Parental needs and concerns
- Perceived gap between evidence and practice
- Ease of including in daily professional practice
- Lack of information from other sources

See Appendix 3 for more detail about the selection criteria.

Overview

How were the Practice Resources developed?

The content of the resources were drawn from the published research, expert advice, and information about innovative and promising practices. An expert committee oversaw the development of the content, and an expert in the field reviewed the content of each resource.

The format and design of the resources was focus tested and modified accordingly.

Are there limitations to these Practice Resources?

For a number of topics there were limited numbers of well researched interventions and strategies available in the literature. Therefore it is important to note the following:

- Where possible National Health and Medical Research Council principles of assessing evidence were applied to research reviewed. For some topics there was very little evidence of high quality.
- Interventions and strategies included in the resources were based on a combination of research-based principles and expert advice.
- It is highly likely that the evidence for most topics will change over the next few years; suggested strategies may require ongoing review.

Glossary

Externalising behaviour	A constellation of behaviours characterised by non-compliance, aggression, destructiveness, attention problems, impulsivity or hyperactivity.
Head Start programs	A comprehensive early intervention program in the United States targeted at children from birth to age five with higher-than-average levels of families at low socio-economic levels. The program aims to improve health, academic achievement and social development. A range of classes is also available for parents and nutrition programs are provided for children as well as psychological and social services.
Parent and child training program	Program designed for children at risk of developing a behavioural disorder and their parents. The child component of the program is highly practical and interactive and offers real-life situations in which children can develop their behavioural skills. The parent component involves training small groups of parents in both parenting and interpersonal skills.
Toddlers Without Tears	A universal parent training program that educates parents about what they can do to encourage desirable behaviour in their child and discourage undesirable behaviour. Primary health care professionals educate the parents individually when their child is eight months old and in group settings when children are 12 and 15 months.
Triple P	The Positive Parenting Program, developed in Australia, which uses a five-level model of family intervention in both treatment and prevention and is tailored to individual families' needs. The focus is on parenting skills, competence, communication between parents and reducing parental stress.

Glossary

Webster-Stratton

Webster-Stratton and Hammond's combined parent and child training program is designed for children at risk of developing a behavioural disorder and includes a specific child (Dinosaur school) component as well as parent training.

Refer to Appendix 5 for a glossary of terms related to research methodology terminology.

Section 1: Introduction

Setting the scene

Focus:	Early Intervention
Topic inclusion:	Everyday behavioural difficulties (for example, kicking, biting, fighting, non-compliance)
Topic exclusion:	Clinical behavioural disorders (for example, conduct disorder, attention-deficit disorder and oppositional defiant disorder)
Age group:	One to twelve year olds

The term *behaviour* refers to the way a person responds to a certain situation or experience. Behaviour is affected by temperament, which is made up of an individual's innate and unique expectations, emotions and beliefs. Behaviour can also be influenced by a range of social and environmental factors including parenting practices, gender, exposure to new situations, general life events and relationships with friends and siblings.

Most children learn to regulate their reactions and feelings over time in the early years through emotional connections with significant others and learned self-understanding. They use the face, voice and body to communicate their reactions to others. If the child receives appropriate responses then an emotional connection is established which will ensure that the child will learn and development will be enriched. This connection requires the parent or caregivers to help the child balance emotions, feel valued and gain a sense of belonging. Parents or caregivers need to be able to read the emotional responses that infants and toddlers are expressing and to model coping skills for the child.

- **Behavioural development in children is strongly influenced by the nature of the infant-caregiver relationship.**
Parents, particularly mothers, who are emotionally available, sensitive, perceptive and effective at meeting the needs of their child are likely to have securely attached infants who are more likely to meet important behavioural milestones as they get older.
- **Isolated behavioural problems, while difficult for adults to deal with, rarely reflect a problem that requires clinical attention.**
Defiance and other behavioural problems in toddlers often reflect age-related conflict or frustration or a lack of understanding of adult expectations.

Section 1: Introduction

Stages of development in behaviour

Toddlers (first three years)

- Behaviour is influenced by increased mobility and language onset
- Can imitate peers and start to alternate roles in play
- Needs to integrate autonomy with closeness to parent
- Has some self-awareness (by two years)
- Must learn to deal with frustration of being told 'no'
- Beginning to learn right from wrong
- Experience a wide and powerful range of emotions
- Learns that disappointment, frustration, and anger are bearable emotions that do not lead to alienation

Preschool-aged children (four - five years)

- Past experiences with others are remembered and can become part of the self concept
- Developing understanding of social rules
- Developing greater empathy
- Systematic increase in pro-social behaviour
- Natural decrease in aggressive behaviour
- Preference for specific peers, so possibility of being disliked

School-aged children (6 - 12 years)

During middle childhood children are working on the following areas in their behaviour:

- Feeling good about self
- Gaining social acceptance
- Integrating unique preferences, strengths and styles with expectations of adults and standards and tastes of peers
- Establishing and following role models
- Dealing with values that differ from those at home
- Maintaining good relationships with family members
- Exploring autonomy and its limits
- Feeling increasingly competent and 'smart'
- Accepting their bodies
- Overcoming fears of unfamiliar situations
- Continuing to regulate internal drives eg choosing not to be aggressive
- Refining self awareness

Section 1: Introduction

When is behaviour a concern?

Common everyday behavioural difficulties

Common everyday behavioural difficulties in children include:

- Whining
- Tantrums
- Bedtime resistance
- Fighting (with parents, other children or siblings)
- Biting
- Kicking
- Swearing

Parental concern about a child's behaviour is considered a sufficient reason for parents to discuss their concerns with a professional. (See Section 2: What works? "Asking about behavioural development" for information on getting parents to talk about their concerns and addressing them.) Up to 50% of preschool children with behaviour problems will continue to experience problems in the school years unless they are addressed.

Australian statistics suggest that parental concern about children's behaviour is relatively common. In one investigation, 10 per cent of parents expressed concern about the behaviour of a child who was under 18 months old, 20 per cent had concerns about a child in the 18 months to three years age range, 30 per cent had concerns about a child in the 3 to 4.5 year age range and 34 per cent had concerns about a child older than 4.5 years.

Tantrums

Since tantrums are a natural part of growing up they are not usually cause for serious concern and will typically diminish of their own accord. Tantrums are particularly common in children under the age of three years, but as children mature and their self control and understanding of the world increase, their frustration levels are likely to decrease, resulting in fewer tantrums.

Kicking, biting and fighting

Kicking and pushing others are common in young children, with one study indicating that 50 per cent of children 17 months push others and 25 per cent kick others.

When a young child kicks, bites or fights with another child, it is likely that he or she is having trouble expressing feelings in words. Such behaviour can be very normal for children in the early years, as they are only beginning to expand their language and are having their first experiences of exerting their own will and dealing with strong emotions.

Section 1: Introduction

The first five years of a child's life involve many changes and challenges that can result in strong negative feelings. The emergence of new verbal skills, self awareness and goal-directed behaviour coincides with parents and carers beginning to impose rules and limits. Thus, clashes are likely to be common during this period and children are likely to express frustration and anger physically.

Behaviours that might be labelled physical aggression typically peak between two and three years of age. Most children learn to regulate such behaviours and use alternatives by the time they reach middle childhood.

Biting can occur for many reasons other than being unable to express feelings. Biting behaviour and its meaning change with age:

- *At four to five months* infants may bite the mother's breast while being breast fed as they use their newly emerged teeth.
- *Around 12 to 14 months*, infants develop an interest in exploring the experience of biting and may bite the parent's or carer's face or shoulder to get a reaction.
- *Between 16 and 24 months*, toddlers may engage in exploratory behaviour with other children that involves trying out biting, hair pulling and scratching as the child tries to figure out other children and how to gain their attention. It often occurs in a new or potentially stressful situation.
- *Between 18 and 30 months*, children develop a natural surge toward independence and want to make their own decisions. This is the age when temper tantrums and very negative behaviour, possibly including biting, are likely to appear.

Swearing

Swearing in and of itself is not a sign of behavioural disturbance. If other problems are associated with the swearing, however, intervention may be required. For example, children who persistently kick and fight as well as swear may be showing signs of a behavioural disorder. Similarly, children who are swearing, lying and having difficulty with peers may be showing signs of an anti-social disorder. Where behaviour appears to be symptomatic of a serious disturbance, parents should seek help from a health professional.

Parental concern about a child's behaviour is considered a sufficient reason for parents to discuss their concerns with a professional.

Section 1: Introduction

Behavioural disorders

When a child's behavioural difficulties are prolonged, extreme and potentially harmful or dangerous this may be a sign that the child is at risk of, or is displaying, a behavioural disorder. Behavioural disorders tend to occur in at least two of the following settings: home, school (or preschool) or social situations. The common clinical term for behaviour of this nature is *externalising behaviour*. The most common behavioural disorders displayed in children are:

- Conduct disorder – a persistent pattern of conduct in which the basic rights of others and major age-appropriate societal norms or rules are violated
- Oppositional defiant disorder – a pattern of negative, hostile, and defiant behaviour without the more serious violations of the basic rights of others that are seen in conduct disorder
- Attention-deficit hyperactivity disorder – developmentally inappropriate degrees of inattention, impulsiveness, and hyperactivity which occur before seven years of age

Risk factors for behaviour disorders

There is a range of risk factors for behavioural problems in children that relate to the parent, family or social or economic environment. The following factors have the potential to negatively influence children's behaviour:

Parental factors

- Marital conflict
- Parental mental illness (also linked with poorer attendance at behaviour management courses)
- Poor communication between parents or parent and child
- Poor parenting skills

Family factors

- Parental rejection of child
- Inconsistent management including harsh discipline
- Large family size
- Absent father
- Parent with anti-social personality disorder and alcohol dependence
- Aggressive behaviour of parents and siblings

Social or economic environment

- Poor quality and quantity of maternal social contacts with relatives or friends outside the home (influences mother-child interaction within home)
- Socio-economic disadvantage

Section 2: What works?

Asking about behavioural concerns

Asking parents about behavioural concerns is important.

The Parents' Evaluation of Developmental Status (PEDS) instrument assists professionals to elicit and address in an informal way parental concerns about behavioural development. The instrument, which takes only a few minutes for parents to complete, applies to children from birth to eight years.

The following link gives access to further information on PEDS:
www.rch.org.au/ccch/peds

Introduction to behavioural management strategies

Research on strategies for dealing with behavioural problems has generally been restricted to programs targeting children with early signs of a behaviour disorder or with an established disorder. The one exception is the Toddlers Without Tears (TWT) program, in which parents of children aged 8 months to 15 months without established behaviour problems receive behavioural management training for the next 12-24 months from primary health care professionals. Thus, while the focus of this resource is children with everyday behavioural problems, studies on children at risk of developing behavioural problems or who actually have them are included.

The approach adopted to address children's behavioural problems in the studies reviewed for this resource was *behavioural management training*, which was delivered to parents only, children only, or both parents and children.

The studies can be categorised in the following way:

- Universal (offered to all children)
 - parent training program
- Children at risk
 - parent-only training program
 - parent and child training program
 - child-only training program
- Children with behavioural disorder
 - parent-only training program
 - parent and child training program

Section 2: What works?

Behavioural training programs for parents only and for children and parents have been shown to be successful in addressing behavioural problems for children at risk of developing a behavioural disorder and those who have an established disorder. Effects are sustained over time for some programs.

Universal parent training is in its early stages but initial reports suggest positive effects on children over a 12-month period and have resulted in positive feedback from parents and professionals.

Understanding behavioural training programs

Key points

- The need for behavioural training programs is great because behavioural problems in children are highly prevalent, often persist and worsen as children get older, and can be damaging psychologically and physically to the child and others with whom the child interacts.
- Behavioural training programs are based on social learning principles which highlight the fact that children's behaviour occurs as a result of parental behaviour and vice versa.
- Most behavioural training programs focus on training parents rather than children; however, at least one successful program involves a component specifically for children.
- Behavioural training programs teach parents new ways of interacting with children that create a more positive environment for children to grow and learn.
- These programs also teach parents to think in more constructive ways about the ways they interact with their children.
- The programs focus on the importance of parents looking after themselves so that they look after their children.

Section 2: What works?

Understanding universal parent training programs

The only universal behavioural training program that has been researched systematically to date is Toddlers Without Tears, a description of which follows.

What is Toddlers Without Tears?

- Toddlers Without Tears is a training program that educates parents about what they can do to encourage desirable behaviour and discourage undesirable behaviour.
- Primary health care nurses (for example, maternal and child health nurses) are trained to conduct the program.
- The format of the program involves nurses consulting with parents individually when their child is eight months old and in groups when children are 12 and 15 months old.
- When the child is eight months the focus is on what to expect in the next 12 months in the areas of normal motor, social and language development. What the behaviour means for the child and the motivation for it may differ from the ways parents see it. For example, a child throwing food may be experimenting, while the parent may see the child as simply 'misbehaving'.
- The focus when the child is 12 months includes sharing toddler play activities, planning to avoid situations where undesirable behaviour may occur – for example, shopping trips and doctor's waiting rooms – and parents' beliefs that may lead to harsh parenting.
- The focus when the child is 15 months old includes setting basic rules and limits, giving simple instructions, using distraction and planned ignoring for low priority misbehaviour, providing a quiet time for high priority misbehaviour and where to go for further help.
- The messages promoted are reinforced with handouts, written reminders and, in some instances, videos and role plays.

For the latest update on the Toddlers Without Tears program and links to specific references, see the Centre for Community Child Health: Research/Projects link:

[www.rch.org.au/ccch/research/index.cfm?doc_id=432 - dev_behav](http://www.rch.org.au/ccch/research/index.cfm?doc_id=432-dev_behav)

Section 2: What works?

Understanding programs for children at risk of, or with, a behavioural disorder

Although most training programs for children at risk of, or with, an established behavioural disorder focus on parents only, at least one program is designed for both parents and children. Following are details of a parent-only program (Triple P) and a parent and child program.

What is the Positive Parenting Program (Triple P)?

- The Positive Parenting Program (Triple P) involves interventions at different levels of intensity that target children's behavioural and emotional problems.
- While there are many interventions that make up the program, the only ones trialled in research at this stage are those designed for children at risk of developing a behavioural disorder.
- These programs have been administered to parents only.
- The programs have involved changing the way parents think and behave in relation to both themselves and their children.
- Parents are taught to be good problem solvers and to monitor and evaluate their parenting performance according to reliable criteria. They are also encouraged to see themselves as competent and successful parents.
- In addition parents are taught ways to create positive learning environments for their children by using descriptive praise (for example, 'That's great Johnny that you ate every bit of your meal tonight'), offering quality time (by organising activities that the child finds particularly engaging) and setting a good example.
- Parents are taught to be assertive in disciplining their children rather than coercive and are encouraged to have realistic expectations about their child's capabilities.
- Parents are encouraged to take care of themselves so that they can feel good about parenting.
- Triple P can be run one-on-one with a health professional or in a group.
- Triple P has been successful in a variety of formats (including a self-administered workbook as well as group sessions run at early childhood facilities) but requires a big commitment from parents, as programs typically run for around 10 weeks.
- The following shorter program has been developed recently for practitioners and has received some preliminary research support:
 - Professionals undergo a standard two-day training workshop on Triple P (called Level 3: Primary Care Triple P).

Section 2: What works?

- Based on parents' identified concerns, professionals introduce them to relevant resources from the Triple P collection (tip sheets, videotapes, and a booklet outlining the principles of positive parenting and common causes of children's behaviour problems).
- The professional delivers this information in brief meetings of 15 to 30 minutes with parents over a period of a few weeks.
- In addition to the training programs, Triple P also offers tip sheets, a positive parenting booklet, and a video series, all of which are available for purchase from the following website:
www.vicparenting.com.au/vp/publications/resources.php

What is a combined parent and child training program?

- Webster-Stratton and Hammond's combined parent and child training program is designed for children at risk of developing a behavioural disorder.
- Dinosaur School is the component of this program that is designed specifically for children to take part in on their own.
- The rationale for the design of Dinosaur School was that when combined with the parenting program, it would provide a more comprehensive approach to handling behavioural problems in children at high risk of developing a behaviour disorder.
- Dinosaur School is a highly practical and interactive course for children as it offers real-life situations in which children can develop their behavioural skills. The program includes fantasy play with life-size puppets, group activities and role plays.
- Another feature of Dinosaur School is that its focus extends across settings (home, school and clinic) and it targets specific situations from these settings. For example, in the classroom the focus is impulsive talking and bothering other children.
- Dinosaur School has been used successfully to reduce behavioural problems in children at high risk of developing a behavioural disorder.
- The program requires a big commitment from parents as it involves weekly sessions of two hours' duration for 22 weeks.
- The course also requires a level of commitment from the child's teacher, who receives regular updates on the themes for each week.
- The parent component of the program involves training small groups of parents in both parenting and interpersonal skills.
- Like their children, parents attend two-hour sessions over 22-24 weeks and are trained by a therapist with the aid of videotapes.

Section 2: What works?

What you can do

The TWT program is an evidence-based program designed to train parents to deal with children's everyday behavioural problems. It uses an informative and practical approach to parent training. The following principles and strategies of the TWT program can be used in discussions with parents to help them manage their children's behaviour:

- Acknowledging and showing appreciation of desirable behaviour will increase the likelihood of a child displaying more desirable behaviour in the future.
- It is helpful for parents to be aware of what is realistic to expect from their child in an upcoming 12 month period – eg. it is normal for children to have regular tantrums once they become toddlers.
- It is a good idea to plan activities for toddlers for situations when the parent knows that there is potential for the toddler to behave inappropriately – for example when the parent is busy or while in the waiting room of a health clinic.
- Understanding that children have their own view of events that may differ from a parent's can help.
- Using coping thoughts when children are behaving inappropriately can help parents feel better about their parenting and about the situation. Coping thoughts are those that encourage a parent to focus on what they are doing well as a parent and to consider their child's behaviour in a more positive and relaxed way. An example of a coping thought is a mother reminding herself when her child misbehaves that the child is young and there are many things he or she does not understand.
- There are practical and simple strategies that can reduce some inappropriate behaviour and therefore the need for a response, including toddler-proofing the house, keeping up daytime sleeps, and setting simple rules and limits.
- Categorising behaviour as either low priority (for example, whining or throwing food) or high priority (for example, hitting and kicking) and responding to the behaviour in a way that matches its level of priority helps to minimise confrontations with toddlers.
- Giving the child quiet time, that is, a short break from the activity he or she is engaged in spent alone, is a good response to high priority undesirable behaviour for children 18 months and older.

Section 2: What works?

- Distraction and planned ignoring are good responses to low priority undesirable behaviour that do not reinforce them.
 - Distraction – instructing child to stop their current activity/behaviour (eg, throwing food on the ground) and offering a different one that is more acceptable, taking the child's attention away from the undesirable behaviour.
 - Planned ignoring – asking the child to stop the behaviour, indicating a more acceptable alternative and being prepared to ignore the original behaviour if it continues.

For guidance on how to support parents when discussing issues related to child behaviour, the following guidelines, adapted from a book by Butterfield, Martin and Prairie (2004), are recommended. These are consistent with the principles and strategies of the TWT program and Triple P:

- **Support parents in their parenting role.**
 - Listen to their concerns.
 - In your response, identify the way they are feeling.
 - Clarify your own understanding of what is occurring by reflecting back what you are hearing.
 - Use a positive tone of voice and facial expressions.
 - Focus on their positive actions.
- **Help parents understand child's point of view.**
 - Without giving advice, talk through your observations of the child (if the child is known to you).
 - Assist them to gain appreciation of the way the child may be feeling.
 - Share your understandings about behaviour and child development.
 - Identify the things they are doing that are helping their child.
 - Use the phrase 'I wonder if' when describing your thoughts about what may have occurred. For example 'I wonder if maybe you hit your sister because you were cross with her?'
- **Ask questions that empower parents to engage in reflective problem solving.**
 - Summarise their concerns as you hear them.
 - Ask questions that assist them to reflect on concerns and elicit their ideas for solutions.
 - Take into consideration their cultural customs and beliefs.
 - Respect their ideas and add to them and explain your reasons.
 - Avoid giving rigid advice.

Section 2: What works?

Information for parents

The following sites provide additional information for parents on behavioural development:

- Child and Youth Health & Parenting SA: Discipline (0-12 years):
www.cyh.sa.gov.au/HealthTopics/HealthTopicDetails.aspx?p=114&np=141&id=1763
- KidsHealth for Parents: Nine steps to more effective parenting
www.kidshealth.org/parent/positive/family/nine_steps.html
- Orelena Hawks Puckett Institute: Sunny days ahead
www.evidencebasedpractices.org/ifitfits/If_It_Fits_vol1_num4.pdf

For information on strategies for dealing with everyday behavioural difficulties, refer parents to these links:

- BBC Parenting: Your Kids (Toddlers and Preschool Children; Primary School Children)
www.bbc.co.uk/parenting/your_kids/

Information for parents on receiving parent training or support can be found at the following link:

- Victorian Parenting Centre: Triple P, Information for Parents
www.vicparenting.com.au/vp/programs/programview.php?id=10&page=parents
- Raising Children's Network
www.raisingchildren.net.au

Section 2: What works?

Key Messages for Professionals

Common everyday behavioural difficulties in children include whining, tantrums, bedtime resistance, fighting (with parents, other children, or siblings), biting, kicking, and swearing.

Many of these are a natural part of growing up and are not usually cause for serious concern as they will typically diminish of their own accord.

Parental concern about a child's behaviour is considered a sufficient reason for a parent to discuss their concerns with a professional. The PEDS (Parents' Evaluation of Developmental Status) tool can be used to elicit and address such concern.

Key points about behaviour

- **Patterns of behaviour are largely based on the nature of the infant-caregiver relationship.**

Parents, particularly mothers, who are emotionally available, sensitive, perceptive and effective at meeting the needs of their child are likely to have securely attached infants. This attachment has been linked to infants achieving a range of developmental milestones.

- **Isolated behavioural problems, while difficult for adults to deal with, rarely reflect a problem that requires clinical attention.**

For toddlers defiance and discipline problems may reflect age-related conflict or frustration or a lack of understanding of adult expectations.

Section 2: What works?

Research-based strategies for addressing behavioural problems

Behavioural training programs for parents only and those for children and parents have been shown to be successful in addressing behavioural problems for children at risk of developing a behavioural disorder and those who have an established disorder, with effects sustained over time in some programs.

Principles of a universal approach that can be used in discussions with parents to help them manage their children's behaviour include the following:

- Acknowledging and showing appreciation of desirable behaviour will increase the likelihood of a child displaying more desirable behaviour in the future.
- It is helpful for parents to be aware of what is realistic to expect from their child in an upcoming 12 month period – for example, that it is normal for children to start having regular tantrums once they become toddlers.
- Using 'coping thoughts' when children are behaving inappropriately can help parents feel better about their parenting and about the situation – for example, a mother reminding herself when her child behaves inappropriately that he or she is young and does not understand many things.
- Categorising behaviour as either low priority (for example, whining or throwing food) or high priority (for example, hitting and kicking) and responding to the behaviour in a way that matches its level of priority helps to minimise confrontations with toddlers.

Section 2: What works?

Key Messages for Managers

Common everyday behavioural difficulties in children include whining, tantrums, bedtime resistance, fighting (with parents, other children, or siblings), biting, kicking, and swearing.

Many of these are a natural part of growing up and are not usually cause for serious concern as they will typically diminish of their own accord.

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Key points about behaviour

- **Patterns of behaviour are largely based on the nature of the infant-caregiver relationship.**
Parents, particularly mothers, who are emotionally available, sensitive, perceptive and effective at meeting the needs of their child are likely to have securely attached infants. This attachment has been linked to infants achieving a range of developmental milestones.
- **Isolated behavioural problems, while difficult for adults to deal with, rarely reflect a problem that requires clinical attention.**
Defiance and discipline problems in toddlers may reflect age-related conflict or frustration or a lack of understanding of adult expectations.

Research-based strategies for addressing behavioural problems

Behavioural training programs for parents only, and those for children and parents, have been shown to be successful in addressing behavioural problems for children at risk of developing a behavioural disorder and those who have an established disorder, with effects sustained over time in some programs. There are Australian examples of these programs available such as Triple P.

Preliminary evidence also suggests that a universal approach delivered through primary care may address behaviour concerns early and prevent later behaviour problems.

Practitioners working with children and families are ideally placed to address parental concerns about behaviour and utilise a universal approach to help parents manage their children's behaviour.

Section 3: What the research shows

Summary of the evidence on behaviour training programs

Behavioural training programs (with the parent, child or both) have been shown to be effective in reducing children's behavioural problems and improving behaviour over time. The Positive Parenting Program in particular has been a highly effective parent-only intervention program.

Intervention focus	Recommended intervention	Effectiveness*
At-risk three year olds	Parent-only programs – Triple P: parenting strategies related to behaviour ranging from basic assistance through self-delivered instruction to one-on-one involvement with a clinician.	''' '''
At-risk children three years and older	Parent-only programs – parenting strategies focusing on effective discipline through observing children's play, video modelling of good parenting and group discussions. Parent and child programs – designed for children at risk of developing a behavioural disorder; children are offered real-life situations to develop their behavioural skills and parents are taught parenting and interpersonal skills in small groups.	''' '''
Children three years and older with established behaviour disorders	Parent-only programs – clinician-delivered parenting training focused on children's behaviour, including guidance on what constitutes age-appropriate responses to misbehaviour. Parent and child programs – parenting strategies relating to children's behaviour delivered in group situation involving coaching of parents to give appropriate instruction while children play.	''' '''
At-risk children three years and older	Child-only programs – group training on strategies to deal with issues relating to poor social interactions, conflict resolution and increasing use of empathy.	'''
Children 8-15 months old	Parent-only program – Toddlers Without Tears: training program that educates parents about what they can do to develop a warm, positive relationship with their child, encourage desirable behaviour and discourage undesirable behaviour.	?

* See next page for key to symbols.

Section 3: What the research shows

Guide to recommendation of effectiveness category

Level of evidence	Effectiveness	Key
Strong to good evidence	Beneficial	✓ ✓ ✓
	Not beneficial	⚡ ⚡ ⚡
Fair level of evidence	May be beneficial	✓ ✓
	May not be beneficial	⚡ ⚡
Requires more studies	May be beneficial (promising)	✓
	May not be beneficial (not likely)	⚡
	Unknown benefits	?

Refer to Appendix 5 for a glossary of terms related to research methodology terminology.

Key research findings on everyday behavioural concerns

- **Development of children's behaviour is strongly influenced by the nature of the infant-caregiver relationship.**

Parents, particularly mothers, who are emotionally available, sensitive, perceptive and effective at meeting the needs of their child are likely to have securely attached infants who are more likely to meet important behavioural milestones as they get older¹.

- **There is a range of key behavioural milestones for children to meet as they get older.**

By 18 months most children display a strong sense of self and demonstrate shared attention (for example, when a parent points to an object and says, 'Look over there' the child knows what the parent is pointing to and that the parent sees the object also). By two years most children are able to play side by side with a single peer and separate from a parent without crying; and by three years most children are able to label their feelings, begin to take turns, begin to share and play group games with simple rules².

Section 3: What the research shows

- **Isolated behavioural problems, while difficult for adults to deal with, rarely reflect a problem that requires clinical attention.**

Defiance and discipline problems in toddlers may reflect age-related conflict or frustration or a lack of understanding of adult expectations³.

- **Tantrums, a natural part of growing up, are not usually cause for serious concern and will typically diminish without intervention as the child gets older.**

Temper tantrums usually occur in children between one and three years of age. During this period some children may have one tantrum a day on average⁴.

- **Biting is common in young children.**

A study by Garrard, Leland and Smith (1988) documented the incidence of biting in a child care centre over a one-year period. Over this period, 347 bites were recorded, with 72 bites to infants, 195 bites to toddlers and 80 bites to preschool-aged children⁵.

- **Other types of physical aggression have also been shown to be common in young children.**

Even in children as young as 17 months, approximately 50 per cent have been found to push others and 25 per cent kick others⁶. Physical aggression typically peaks between two and three years of age, and most children learn to regulate their use of physical aggression by the time they reach middle childhood⁷.

Australian statistics suggest that parental concern about children's behaviour is relatively common. In one investigation, 10 per cent of parents expressed concern about the behaviour of their child under 18 months, 20 per cent had concerns about a child in the 18-month to three-year-old age group, 30 per cent had concerns about a child in the 3 to 4.5 year age range and 34 per cent had concerns about a child older than 4.5 years. (Armstrong M, Goldfeld S. 2004 Good beginnings for young children and their families: a feasibility study)

Section 3: What the research shows

- **Up to 50% of preschool children with behaviour problems will continue to experience problems in the school years unless they are addressed. (Campbell)**

A review by Campbell et al of longitudinal studies found that, left untreated, preschool externalising behaviour problems can persist into the school years in up to 50% of children.

- **There is a range of risk factors for behavioural problems in children that relate to the parent, family and/or social or economic environment.**

The following factors have the potential to negatively influence children's behaviour⁸:

Parental factors

- Marital conflict
- Parental mental illness (also linked with poorer attendance at behaviour management courses)
- Poor communication between parents or between parent and child
- Poor parenting skills

Family factors

- Parental rejection of child
- Inconsistent management including harsh discipline
- Large family size
- Absent father
- Parent with anti-social personality disorder and alcohol dependence
- Aggressive behaviour of parents and siblings

Social or economic environment

- Poor quality and quantity of maternal social contacts with relatives or friends outside the home (influences mother-child interaction within the home)
- Socio-economic disadvantage

Section 3: What the research shows

Interventions for behavioural problems

The interventions that are outlined includes:

- Universal parenting programs
- Children at risk of, or with, behavioural disorders – including parent only programs and parent and child programs

Universal parenting program: Toddlers Without Tears

A description of the TWT program is provided in “Section 2: What works?”

TWT has had preliminary success in a pilot program carried out with a group of 57 mothers in Melbourne⁹. The target group was children (15 months or younger) of parents attending a health care setting when the child was eight months old. The majority of children were boys from a range of different ethnic backgrounds. A randomised control trial is currently being conducted for Toddlers Without Tears with outcomes after two years expected in the first half of 2006.

Key findings from the pilot program

Most mothers (74 per cent) reported that the timing of the program was ideal. All nurses reported that the program was feasible to deliver in their practice. Strategies to encourage positive behaviour and were rated as ‘quite’ useful by 89% and strategies to manage negative in young children ‘extremely’ useful by 91% of mothers. Nurses reported the program increased their capacity to help parents prevent behaviour problems. Mothers who attended the program were less likely to report continuity of difficult child behaviour between eight and 18 months of age.

An analysis was also done on the characteristics of children whose mothers withdrew from the program after the initial session. These children were compared with those whose mothers stayed in the program.

- It appeared that those children whose parents were not able to continue with the sessions continued to display signs of behavioural difficulty at 18 months compared to children who stayed in the program.
- These findings provide a promising suggestion that the TWT program may lead to a reduction in behaviour problems for children whose mothers attend all three sessions.

Section 3: What the research shows

Children at risk of, or with, behaviour disorders

The target group is children at risk of, or with, an established behaviour disorder.

Key findings

All training programs have been shown to be effective in addressing behavioural problems in children aged three years and older. The level of support for the effectiveness of different programs varies.

Parent-only programs have the strongest empirical support. A number of randomised control trials support their effectiveness and demonstrate their long-term benefit. Such programs are effective in treating children at risk of developing a behavioural disorder, at high risk and those with a behavioural disorder.

Randomised control trials support the immediate and sustained effect of parent-and-child programs, although there are fewer studies.

Empirical evidence for the effectiveness of child-only programs is limited; however, initial findings are promising.

For three year olds at risk:

- Triple P has been effective in lowering levels of aggressive behaviour in children, improving parents' discipline strategies, increasing marital satisfaction and decreasing family stress.
- There is no indication that any one strategy (for example, informational or intensive one-on-one instruction) is better than another.
- Some support exists for the maintenance of changes in follow-ups after 12 months.

With three to eight year olds at risk:

- Parent-only programs have been effective in reducing behavioural problems, with group programs found to be more effective than individual ones when directly compared in one study¹⁰.
- Parent-and-child programs have been found to be effective in bringing about a range of positive outcomes including: problem behaviour returning to norms for age; increasing social competence and emotional adjustment; and improvements in interactions with parents, academic performance, problem solving and conflict management. Both group and individual programs¹¹⁻¹³ have been effective.
- The child-only program was effective in improving problem solving and conflict management in one study.

Section 3: What the research shows

With three to nine year olds with a behavioural disorder:

- Both parent-only programs and parent-and-child programs have been effective in bringing about more compliant behaviour.
- There are insufficient data on the long-term effects of these programs.

Intervention strategies used in Triple P: Positive Parenting Program¹⁶

The intervention strategies used in Triple P vary greatly and range from basic assistance through self-delivered instruction to intensive involvement with a clinician to improve parenting techniques and deal with general family problems. The details of different Triple P interventions tested in randomised control trials are provided below:

Provision of informational material

- Self-delivered
- Runs for 10 weeks
- Uses Every Parent book and workbook

Provision of informational material plus support calls

- Informational material is typically self delivered
- Support calls by a clinician of five to twenty minutes duration offering positive parenting strategies
- Both components run for several weeks
- Content includes behavioural management training and homework for parents
- Involves use of a parent manual and videotape

Intensive one-on-one instruction

- Delivered by a clinician
- Takes place in the home and clinic
- Consists of 12 weekly sessions
- Clinic sessions involve intensive behavioural parent training
- Home visits focus on parent-child interaction and integration of skills learned at clinic

Intensive one-on-one instruction plus family focus

- Delivered by therapist
- Involves parent training on behavioural concerns in children and a program for family problems
- Targets such problems as marital discord, communication, stress coping skills and major child behaviour problems

Section 3: What the research shows

Details of parent and child behavioural training program¹⁵

The details of Webster-Stratton and Hammond's combined parent and child behavioural training program are outlined below:

Child groups

- Designed for children aged four to eight years
- Five to six children per group
- Takes place at clinic with therapist
- Two-hour weekly sessions for 22 weeks
- Format includes video modelling of children in 'real-life' situations and related discussion, fantasy play with life-size puppets, group activities, role playing, and stories
- Targets lack of social skills, conflict resolution, loneliness, negative attributions and inability to empathise
- Use 'time-out' as a punishment for inappropriate behaviour
- Teach children to cope effectively with 'time-out'
- Weekly letters sent to teachers and parents explaining key concepts

Parent groups

- 10 to 12 parents per group
- Takes place at clinic with two therapists
- Two-hour weekly sessions for 22-24 weeks
- Uses 17 videos on parenting and interpersonal skills
- Parenting skills modelled
- Focus on problem solving and positive discipline strategies
- Includes group discussions

General research findings on parent training programs

Irrespective of whether parents participated in training alone, in conjunction with their child, in parallel sessions with their child or only their child had training, positive outcomes resulted consistently. This result was achieved with both basic and intensive training, group and individual training, and for children of varying ages and with a range of problems. The clinical significance of the findings has also been established with effects being maintained over long periods.

Section 3: What the research shows

When the strength of the evidence is considered in combination with the knowledge that strong links have been established between early behavioural problems and deviance later on in life (for example substance abuse, antisocial behaviour, and crime¹⁴), the case for intervening in children's behavioural problems is compelling.

Selection of children for intervention should be based on careful consideration of the family and social environment. Research has shown that children with a behaviour disorder are likely to show symptoms of the disorder across a range of settings. Parents of these children are therefore best suited to programs such as Webster-Stratton's that involve children's teachers as well as parents in efforts to encourage more appropriate behaviour¹⁵.

Some children's problems are deeply entrenched in the typical way their family relates and functions. In such cases, the comprehensive Triple P Program would be appropriate as it targets family problems as well as providing parent training¹⁶.

The content of advice and provision of support appear to be the key determinants of the success of behavioural training programs. All programs included in the review that have been found to be effective in reducing children's behavioural problems have an underlying behavioural modification basis. In addition, most programs have the element of support from therapists or other parents embedded in their structure.

An early intervention program such as Toddlers Without Tears is likely to be most effective when children are between 8 and 15 months. From eight months of age children become more active and autonomous, and opposition to others' requests begins to occur. Also between 10 and 24 months is when many parents become concerned about helping their children become aware of what is desirable and undesirable behaviour. This suggests that an ideal time for parents to begin training in appropriate and effective strategies of behaviour management is between 8 and 15 months⁹.

In rural areas it may be difficult for parents to attend programs; therefore information booklets may be the most appropriate intervention. Where more assistance is required to maintain parents' motivation and tailor the information to their child's specific problem, support calls can be made to the families' homes¹⁶.

Section 3: What the research shows

Annotated summary of intervention studies

Following is:

- A summary of the intervention studies that were used to inform this resource
- Parent training programs for children 8 to 15 months
- Parent training programs for three year old children
- Parent training programs for children 3 years and older

Summary of intervention studies targeting behaviour problems in children birth to six years

Focus of study	Target group	Author
Parent training program: individual and group ⁹	8–15 month olds <i>universal program</i>	Hiscock, Bayer and Wake (2005) Hiscock, Bayer and Wake (in press)
Parent training program: individual ^{17 18 19}	3 year olds <i>at risk</i>	Sanders, Connell and Markie-Dadds (1994) Sanders and Markie-Dadds (1996) Williams, Silburn and Zubrick (1996)
Parent training program: group and individual ¹⁰	6 year olds <i>high risk</i>	Cunningham, Bremner and Boyle (1995)
Parent training program: individual ^{20 21}	3–12 year olds <i>behaviour disorder</i>	Patterson, Reid and Dishion (1992) Dishion, Patterson and Kavanagh (1992)
Parent and child training program: group ²²	3-6 year olds <i>behaviour disorder</i>	Schuhmann, Foote, Eyberg, Boggs and Algina (1998)
Parent and child training program: individual ¹¹⁻¹³	3-6 year olds <i>high risk</i>	Forehand and McMahon (1981) McMahon and Forehand (1984) McMahon (1994)
Parent and child training program: group ¹⁵	4-8 year olds <i>high risk</i>	Webster-Stratton and Hammond (1997)
Parent training program: group ²³⁻²⁸	3-8 year olds <i>high risk</i>	Webster-Stratton (1981) (1982) (1990) (1992) Webster-Stratton and Hancock (1998) Webster-Stratton, Hollinsworth and Kolpacoff (1989)
Parent training program: group and individual ²⁹	3-6 year olds <i>behaviour disorder</i>	Webster-Stratton (1984)

Practice resource:

BEHAVIOUR PROBLEMS

Parent training program for children 8 to 15 months

Study	Participants	Intervention	Targeted Behaviour	Results	Comments
Hiscock, Bayer and Wake (2005) ⁹	57 mothers of infants attending their eight-month health care visit	Universal program – all children of parents attending primary health care facility at eight-month visit	<p>Toddlers Without Tears: a parent training program that educates parents about what they can do to develop a warm positive relationship with their child, encourage desirable behaviour and discourage undesirable behaviour</p> <p>Eight-month visit involved individual consultation with health nurse</p> <p>12-month visit involved group session with parent handouts</p> <p>15-month visit – group session with parent handouts</p>	Strategies to encourage positive behaviour in young children were rated as “quite” useful by 89% of mothers and strategies to manage undesirable behaviour “extremely” useful by 91% of mothers. Mothers who attended the program were less likely to report continuity of difficult child behaviour from 8 to 18 months of age.	Barriers to implementation included lack of after-hours sessions and child care.

Practice resource:

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Study	Participants	Intervention	Targeted Behaviour	Results	Comments
Hiscock, Bayer and Wake (study underway)	<p>Parents of 8 – 15 month olds</p> <p>734 families in six local government areas</p> <p>40 maternal and child health nurses trained</p>	<p>Universal program – all children of parents attending primary health care facility at eight-month visit</p>	<p>Toddlers Without Tears: a parent training program that educates parents about what they can do to develop a warm positive relationship with their child, encourage desirable behaviour and discourage undesirable behaviour</p> <p>Eight-month visit involved individual consultation with health nurse</p> <p>12-month visit involved group session with parent handouts</p> <p>15-month visit involved group session with parent handouts</p>	<p>Results available late 2006.</p>	

Practice resource:

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Parent training programs for three year old children

Study	Participants	Intervention	Targeted Behaviour	Results	Comments
Williams, Silburn and Zubrick (1996) ¹⁹	<p>Parents of three year olds</p> <p>Intervention group (I) -900 families</p> <p>Control group (C) - 700 families</p> <p>(Parents in groups of 10)</p>	<ul style="list-style-type: none"> • Preschool behavioural problems • Coercive parenting • Marital conflict • Parental depression • Socioeconomic disadvantage 	<p>Triple P</p> <p>I: four weeks of training with a health professional and four weeks of support calls</p> <p>or</p> <p>I: 12 weekly sessions in a clinical setting and home visits with a clinical psychologist</p> <p>C: usual care</p>	<p>Improved child behaviour and parenting practices significantly</p> <p>Significant reduction in maternal depression and family stress and increased marital satisfaction</p> <p>Maintained improvement at 12 months follow-up</p>	<p>All intervention families did Intervention 1 but not Intervention 2</p> <p>Control group families matched for socioeconomic disadvantage.</p>
Sanders, Connell and Markie-Dadds (1994) ¹⁷	<p>Parents of three year olds</p> <p>Intervention group - 20 families</p> <p>Wait list control group - 20 families (Wait list control parents went on waiting list for intervention after the study)</p>	<ul style="list-style-type: none"> • Preschool developmental behavioural problems • Children at risk of conduct problems 	<p>Triple P</p> <p>I: 10 weeks of self-directed information and 10 weekly support calls</p>	<p>Significant reductional problems (parent report)</p> <p>Improved parenting skills and increased wellbeing</p>	

Practice resource:

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Study	Participants	Intervention	Targeted Behaviour	Results	Comments
Sanders and Markie-Dadds (2000) ¹⁸	300 parents of three year olds assigned to one of three intervention groups and 1 wait-list control group	<ul style="list-style-type: none"> • Preschool developmental behaviour problems • Parents with children at risk of conduct problem • Marital conflict and depression 	<p>Triple P</p> <p>I: Self-directed instruction for 10 weeks</p> <p>I: Intensive behavioural parent training and home visits</p> <p>I: Parent behavioural training and intensive therapist-directed program for family problems</p>	<p>All three interventions lowered:</p> <ul style="list-style-type: none"> • levels of aggressive behaviours in children • use of coercive and overactive discipline strategies • parental depression <p>and increased :</p> <ul style="list-style-type: none"> • parenting competence 	83% completed the intervention

Practice resource:

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Parent training programs for children three years and older

Study	Participants	Intervention	Targeted Behaviour	Results	Comments
Patterson, Reid and Dishion (1992) ²¹ Dishion, Patterson and Kavanagh (1992) ²⁰	Intervention group - 46 parents of children 3 to 12 years with socially aggressive behaviour Wait list control group - waiting list	Social aggression (temper tantrums, biting, hitting)	17 hours over weekly sessions with trained therapist	63 per cent reduction in child behavioural problems 75 per cent success with 3-9 year olds, only 25 per cent success rate with older children	Manual provided for therapist
Cunningham, Bremner and Boyle (1995) ¹⁰	Intervention group - 3,564 families of children aged six years (assigned to one of two intervention groups) Wait list control group	Disruptive behaviour	12 weekly sessions for parents in clinic setting or 12 weekly sessions in groups in community setting	Community-based group programs had greater improvement in behavioural problems at home Six-month follow-up: behaviour improvement in community-based group better maintained	Parents of children with severe problems, culturally and linguistically diverse families more likely to enrol in community-based than clinic-based intervention

Practice resource:

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Study	Participants	Intervention	Targeted Behaviour	Results	Comments
Schuhmann, Foote, Eyberg, Boggs and Algina (1998) ²²	64 children three to six years old (and their parents) with clinic-referred behavioural problems Assigned to intervention or wait- list control group	Behavioural problems, oppositional behaviour	Intervention: Weekly one-hour group sessions of child-directed interaction; parents taught non-directive play skills through modelling and instructions using ear-piece coaching; parents learned to give age-appropriate instruction	More positive interactions between parent and child Greater compliance Decreased parental stress	41% dropped out from the intervention group and treatment stopped when problems resolved or parents had mastered skills (mean no. of sessions=13)
Forehand and McMahon (1981); McMahon and Forehand (1984); McMahon (1994) ¹¹⁻¹³ Follow-up: Baum and Forehand (1981); Long, Forehand, Wierson and Morgan(1994) ^{30 31}	47 children three to eight years old (and their parents)	Child non-compliance Poor parenting skills	Intervention: Eight to ten individual sessions for parents and child with therapist	Intervention children followed up long term (six months to 14 years later) were within norms for: internalising and externalising behaviours, social competence, emotional adjustment, relating to parents and academic performance	Maintained changes into adolescence and early adulthood

Practice resource:

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Study	Participants	Intervention	Targeted Behaviour	Results	Comments
Webster-Stratton and Hammond (1997) ¹⁵	97 parents and children (four to eight years old) assigned to one of three intervention groups	<ul style="list-style-type: none"> • Early onset of behaviour problems • Non-compliance • Aggression • Oppositional behaviour 	<ol style="list-style-type: none"> 1. Child training: 22 weekly two-hour sessions in groups of five to six 2. Parent training: 22-24 weekly two-hour sessions led by a therapist in groups of 10-12 parents 3. Combination parent and child training 	<p>Child and combined training produced better problem solving and conflict management skills in children</p> <p>Parent training and combined training produced more positive parent-child interactions.</p>	Findings also revealed that mothers in the intervention group made fewer criticisms and demands than mothers in the control group
Webster-Stratton and Hancock (1998) ²⁷	Parents of children four years old enrolling children in nine community-based Head Start programs N=394 either intervention or control (nine centres randomised to intervention or control group)	<ul style="list-style-type: none"> • Poor parenting • Poor child social competence • Child behaviour problems • Socio-economic disadvantage 	<p>Eight to nine weeks of two-hour sessions of groups of 8-16 parents</p> <p>Videotape vignettes of parenting skills, group discussion, problem solving and teaching positive discipline strategies and effective parenting skills</p>	<p>Immediate result was significant reduction in critical remarks by parents and more positive parenting. Children more socially competent and displayed more positive affect and less non-compliance</p> <p>Parents more involved with child's education</p>	12-18 months post intervention results maintained and less harsh and more consistent discipline evident.

Practice resource:

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Study	Participants	Intervention	Targeted Behaviour	Results	Comments
<p>Webster-Stratton, Hollinsworth and Kolpacoff (1989)²⁸</p> <p>Webster-Stratton (1981) (1982) (1990) (1992)²³⁻²⁶</p>	<p>Intervention group - 114 parents of children three to eight years assigned to three intervention groups</p> <p>Wait list control group</p>	<ul style="list-style-type: none"> • Conduct problems • Poor parenting skills • Parent anger, depression, poor communication 	<p>10 or 12 2-hour sessions in groups of 10-5 parents in a clinical setting led by a therapist or parents in a group without a therapist</p> <p>Group 1: Used video-tape modelling and discussion</p> <p>Group 2: Parent management training-no videos but therapist-led</p> <p>Group 3: Video tape modelling and self-administered parent sessions</p>	<p>Two thirds of children in all interventions achieved normative levels of behaviour from.</p> <p>Parent satisfaction higher in video-modelling discussion group</p>	<p>Most cost effective was self-administered program</p> <p>At one-year follow-up behaviour improved most in Group 1 although all maintained improvement over time</p>
<p>Webster-Stratton (1984)²⁹</p>	<p>35 mothers of children three to eight years randomly assigned to:</p> <p>individual therapy (n=13)</p> <p>therapist-led group (n=11)</p> <p>or wait list controls (n=11)</p>	<ul style="list-style-type: none"> • Clinically referred • Children had oppositional disorder 	<p>Individual therapy with live role play. Parent wears 'bug-in-ear' to receive directions from therapist on positive parenting strategies to try with the child</p> <p>Therapist-led group using video-tape modelling</p>	<p>Both interventions were more effective than the control group</p>	<p>Post-treatment assessments at one year maintained differences between control and intervention group</p>

Practice resource:

BEHAVIOUR PROBLEMS

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Appendix 1

Centre for Community Child Health

The Centre for Community Child Health's mission is to improve the health and wellbeing of all children.

At the forefront of Australian research into early childhood development and behaviour, the Centre has a particular interest in children's mental health; obesity; language, learning and literacy; hearing; and the development of quality early childhood services.

The Centre is committed to disseminating its research findings to inform public policy, service delivery, clinical care and professional practice.

Professor Frank Oberklaid, an internationally renowned researcher, author, lecturer and consultant, leads a team of over 90 staff from a range of disciplines including paediatrics, psychology, education, early childhood, public health and communications.

Located at The Royal Children's Hospital, Melbourne, the Centre is a key research centre of the Murdoch Childrens Research Institute and an academic centre of the University of Melbourne.

Further information about the Centre for Community Child Health can be found at www.rch.org.au/ccch

Appendix 2

Telstra Foundation

In 2002, as part of its strong tradition of community involvement, Telstra established the Telstra Foundation, a program devoted to enriching the lives of Australian children and young people and the communities in which they live.

The Telstra Foundation supports projects that develop innovative solutions and new approaches to issues affecting children and young people aged 18 years and under, are based on sound research, and develop practical applications of new knowledge and have an emphasis on early intervention.

The Telstra Foundation has two main programs, with the *Community Development Fund* providing the funding for the practice resource. The Community Development Fund provides grants to charitable organisations for projects that have wide impact and intervene early to address causal factors affecting the health, well-being and life chances of Australia's children and young people.

Further information about the Telstra Foundation can be found at:

<http://202.12.135.148/dir148/tfweb.nsf/webdocs/home~home?opendocument>

Appendix 3

Criteria for selecting topics

There were a number of criteria used for selecting the topic for each practice resource. These included:

- *Importance of the issue in relation to children's health and development*
There are a number of issues that are very prevalent and impact both on the immediate health and development of the child as well as the impact over the life course.
- *Provider need*
Through various forums providers have requested easier access to research based information that will assist directly in their daily interactions with children and families.
- *Community need*
Around Australia there is increasing community activity focusing on early childhood. A number of these communities have begun to articulate the desire to support families more effectively through providing services that engage in family centred practice and use research based strategies to address issues that concern parents.
- *Parent need and concern*
National consultations have highlighted the issues that parents want more information about. In addition, Australian research has shown that there are a small number of issues that cause parents the most concern about their children.
- *Perceived gap between evidence and practice*
There are a number of areas of practice which in general do not reflect research evidence in spite of sound evidence from that research.
- *Can be readily incorporated into routine practice*
The primary aim of each resource is to assist professionals in their interactions with children and families. Priority was given to issues about which strategies could be relatively easily incorporated into practice.
- *No duplicating of effort*
Consideration was given to whether issues had been addressed elsewhere in similar ways for the same audience.

Appendix 4

NHMRC Guidelines for Levels of Evidence

- | | |
|-------|--|
| I | Evidence obtained from a systematic review of all relevant randomised controlled trials. |
| II | Evidence obtained from at least one properly designed randomised controlled trial. |
| III-1 | Evidence obtained from well-designed pseudo-randomised controlled trials (alternate allocation of some other method). |
| III-2 | Evidence obtained from comparative studies with concurrent controls and allocation not randomised (cohort studies), case-control studies, or interrupted time series with a control group. |
| III-3 | Evidence obtained from comparative studies with historical control, two or more single-arm studies, or interrupted time series without a parallel control group. |
| IV | Evidence obtained from case series, either post-test or pre-test and post-test. |

Appendix 5

Glossary of Terms – Research Methodology

Note: Wherever possible these definitions are taken from the *Glossary of Terms in the Cochrane Collaboration, Version 4.2.5, updated May 2005*.

Case-control study	A study that compares people with a disease or outcome of interest (cases) with people from the same population without that disease or outcome (controls), and which seeks to find associations between the outcome and exposure to particular risk factors
Cochrane Review	Systematic summaries of evidence of the effects of health care interventions, intended to help people make practical decisions. For a review to be called a Cochrane Review it must be in the Cochrane Database of Systematic Reviews or the Cochrane Review Methodology Database. These are administered by the Cochrane Collaboration, an international organisation that aims to help people make well-informed decisions about health care.
Control	A participant in a randomised controlled trial who is in a group that acts as a comparator for the experimental intervention(s); alternatively, a participant in a case-control study who is in a group that does not have the disease or outcome of interest.
Control trials	Studies in which participants are assigned to an intervention or control group using specific criteria.
Effectiveness	The extent to which a specific intervention, when used under ordinary circumstances, does what it is intended to do.
Evidence	Up-to-date, accurate information about the effects of interventions.
Randomised controlled trial (RCT)	An experiment in which two or more interventions are compared by being randomly (like tossing a coin) allocated to participants.