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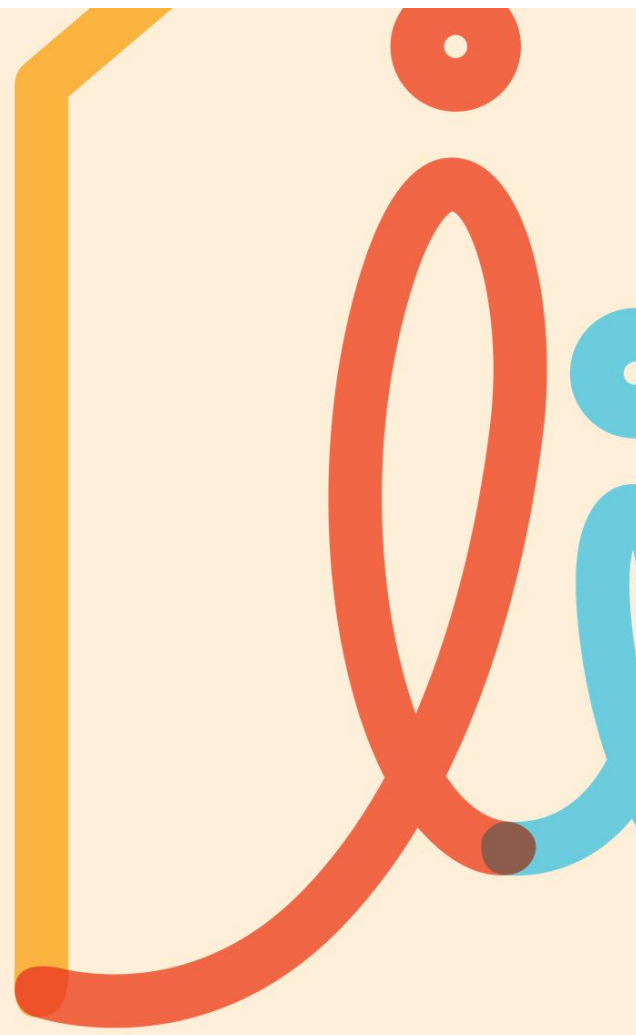
THE UNIVERSITY OF MELBOURNE

Centre of Research Excellence in
Childhood Adversity and Mental Health

Summary of interventions to prevent adverse childhood experiences and reduce their negative impact on mental health: An evidence based review

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Preface

The prevalence of anxiety disorders and depression in Australian children and youth has not reduced, despite increased use of services and medications for these conditions. This could be due to inadequate identification and treatment of early risk factors for anxiety disorders and depression. Children who experience adversities or adverse childhood experiences (ACEs) as they grow are 6 to 10 times more likely to develop mental health problems later in life. ACEs are defined as stressful and potentially traumatic experiences in childhood. They include physical, emotional and sexual abuse or neglect, bullying, parent mental health problems, harsh parenting, parent substance abuse and housing problems.

Targeting interventions to reduce these risk factors during the early childhood years could help to reduce suicidality and improve the mental health and wellbeing of Australian children and the adults they will become. However, despite substantial evidence demonstrating the benefit of investing in the early years of life, interventions targeting the precursors of mental health disorders - i.e. children's emotional and behavioural problems – do not always reach families most in need.

The vision of the Centre of Research Excellence in Childhood Adversity and Mental Health is to create a sustainable service approach, co-designed with end-users, to improve children's mental health by early detection and response to family adversity.

In a step towards achieving this vision, we are conducting a national Delphi consensus study with experts in child health and wellbeing, including practitioners, educators, researchers and policy makers from education, health and human services, and consumer advocates. The Delphi consensus study aims to reach a consensus about what interventions are most likely to be effective in Australia for preventing ACEs and reducing their negative impact on mental health outcomes. In order to inform the judgements of the Delphi expert panellists, we have reviewed and summarised the evidence on interventions and strategies that prevent and respond to childhood adversity associated with common mental health disorders. This report summarises that evidence.

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Background

Adverse Childhood Experiences (ACEs) are stressful and potentially traumatic experiences during childhood that can have negative impacts and lasting effects on health and well-being. Although there is currently no standardized definition of ACEs, the common forms of ACEs include exposure to childhood maltreatment, maladaptive parenting practices (such as harsh discipline, aversiveness, over-involvement or parent-child conflict), family dysfunction, violence and socio-economic adversity. (61, 62) ACEs can be found in both in high, and low- and middle-income countries. Evidence from population-based studies found that 40-60% of adults have had at least one ACE, and a quarter of adults have had at least three such experiences. (63-65)

There is strong evidence showing that ACEs are robustly associated with poor physical and mental health across the life course.(66, 67) Findings from the World Mental Health Surveys in 21 countries have shown that ACEs were associated with, on average, a two-fold increased risk of first onset of common mental disorders across low, middle and high-income countries. (67) This was also demonstrated in other studies that found a significant relationship between exposure to ACEs and subsequent onset of common mental disorders and suicidality. (66, 68)

Previous studies found that preventing or reducing exposure to ACEs could result in a 30% reduction in common mental disorders in the population. (67, 68) The literature consistently recommends that early childhood preventive interventions targeting ACEs may reduce the substantial burden of common mental disorders and suicidality in the population. (69, 70) A range of interventions have been developed to prevent ACEs and/or mitigate their negative impacts. Existing programs vary significantly, including intervention content, implementation process, mode of delivery and resources required. Moreover, there is limited evidence on their effectiveness to prevent exposure to ACEs or ameliorate their impacts on mental health outcomes.

> For the purpose of this report, a parent is defined as a person performing the role of primary caregiver to a child. This person may be different from the person who is the child's biological parent, for example it could include grandparents, step-parents, foster parents, or other carers.

Aim

The purpose of this review is to provide clinicians, policy makers, teachers, educators, health services and families with evidence-based information about which interventions are effective, which are not, and which have not been adequately evaluated.

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Methods

We searched the peer-reviewed literature to identify research evidence on interventions to prevent ACEs and/or ameliorate their negative impacts that were published between January 2010 and January 2020. We also searched grey literature, reference lists of included studies, and well-known international and Australian websites. See Appendix 1 for full details on search strategy.

Inclusion criteria

The present review focused on interventions targeting ACEs broadly (collectively) and specific ACEs, including childhood maltreatment, family dysfunction (such as divorce, separation, inter-parental conflict), caring for a family member with a chronic illness, and maladaptive parenting practices (such as harsh discipline, aversiveness, over-involvement or parent-child conflict). These ACEs were selected because evidence shows that the elimination of these specific ACEs would result in the greatest reduction of mental health disorders in the population.

We included interventions in the evidence review if they: (1) were designed to reduce the occurrence of ACEs in children (0-8 years) or reduce their impact on mental health during or after childhood, and (2) were evaluated for effectiveness in high-income countries, and (3) are currently being implemented or available for users or, alternatively, have not yet been implemented but their effectiveness has been assessed in at least two studies in the last 5 years. Both randomized and non-randomized intervention studies were included. Interventions could target children and/or their parents and be implemented in family, clinical or community settings. The review focused on behavioural or psychological interventions; therefore, pharmacological interventions were not included.

Ranking the evidence

Once interventions or programs were identified, we summarized data on the characteristics of each intervention, including the target population, mode of delivery, delivery format, intervention setting, resources required, intervention duration and intensity, evidence of effectiveness, cost-effectiveness and whether the intervention has been implemented in Australia. The quality of evidence reported in the reviews was assessed using the National Health and Medical Research Council evidence rating and were then categorised as being very high, high, medium and low (See Appendix 2).

Results

A total of 26 different interventions were identified for this review. They included nine parenting programs, eight home visitation programs, three community-wide programs, three economic interventions, two school-based interventions and one psychological therapy intervention. Of the 26 interventions presented, two had a very high level of evidence, 12 were high, ten were medium and one was low.   A summary of the interventions and evidence of their effectiveness is given in Table 1.

Table 1: Summary of interventions and level of supporting evidence

Intervention	Level of evidence	Page
Community-wide Interventions		
Strong Communities	Medium	6
Sure Start	Medium	7
Homebuilders (Family Preservation)	Low	8
Parenting Programs		
Triple P	Very high	9
Generation PMTO (Parent Management Training)	High	10
Incredible Years	Very High	11
SafeCare	High	12
Parents Under Pressure	High	13
Tuning Into Kids	High	14
Circle of Security Parenting Intervention	High	15
Parent-Child Interaction Therapy	High	16
Adults and Children Together Against Violence	Medium	17
Chicago Child-Parent Center for Preschool Program	Medium	18
Home Visiting Programs		
Community Child Health Nurse Home Visiting Program	High	19
right@home	High	20
Healthy Families America	High	21
Parents as Teachers	High	22
Nurse-Family Partnership	High	23
Attachment and Biobehavioral Catch-up	High	24
Home Instruction for Parents of Preschool Youngsters	Medium	25
Healthy Start Program	Medium	26
Home-based Early Head Start	Medium	27
Economic and Social Service Interventions		
Income Supplementation and Maintenance	Medium	28
Housing Assistance	Medium	29
Welfare Reform	Medium	30
Psychological Therapies		
Psychological Therapies for Children Exposed to Trauma	Medium	31
School-based Programs		
School-based Child Sexual Abuse Prevention	High	32
School-based Anti-bullying Programs	High	33

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Community-wide Interventions

Strong Communities

Strong Communities is a comprehensive community-wide initiative for the primary prevention of child maltreatment in families with children aged 0-10 years. (19) It aims to promote changes in perceptions, beliefs, and behaviour, and build a sense of community by increasing caring, inclusion, and both individual and collective actions to support families with young children. (19, 25, 71) Strong Communities is delivered face-to-face in community settings as a whole-of-system approach that targets the entire community. Outreach workers mobilise individuals and institutions such as faith communities, businesses, schools, and civic clubs, to develop and implement localised action plans. It also involves neighbours voluntarily assisting one another, especially families of young children.

Resources and personnel:

- Mostly utilises existing facilities and manpower (e.g. local government, families, and community organizations, parents, volunteers, and educational staff) within the community.
- An outreach staff member with extensive experience in community work (e.g. nurse, school administrator) is assigned to coordinate the program for a community sized between 5,000 and 50,000 people.
- Includes an implementation guide and manuals.

Program duration and intensity:

- Full implementation of the initiative is expected to require 10 years, although this timeline depends on the scope and scale of the effort.

. **Does it work?** Data from quasi-RCTs show that Strong Communities: (24, 25)

- Improved collective efficacy, child safety, and parenting practices
- Reduced rates of officially substantiated child maltreatment, and rates of child injuries suggesting child maltreatment
- Increased help received from neighbours and positive parenting

Level of evidence: Medium

Is it cost-effective? Unknown

Has it been implemented in Australia? Unknown

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Sure Start

Sure Start is a comprehensive, community-based project adapted to local needs, making maximum use of local expertise. (19) Sure Start works with communities to improve existing services according to local needs while covering core services such as: outreach and home visits; support to families and parents; and support for good-quality play, learning and childcare facilities. (19-21) The Sure Start program aims to improve the physical, intellectual, social, and emotional development of children living in poverty. The program is for children under 4 years old and their parents. (72)

Sure Start is delivered face-to-face in the community and family home. Programs are managed by a partnership of health, education, social services, and voluntary sectors. Full implementation of the program requires 4 years; although this timeline depends on the scope and scale of the effort. An outreach worker visits every new mother within 3 months of giving birth. The dose and intensity of the intervention vary according to local needs.

Resources and personnel:

- Coordinated by a Sure Start Unit, which is responsible for identifying local authorities, administering the application process, and monitoring the performance of the overall Sure Start initiative.
- On average, a Sure Start program includes 800 children, with an implementation cost of £1,250 (AU$2,267) per annum per child. (50, 72)

Does it work? Data from quasi-RCTs show that Sure Start: (19-21)

- Improved social development and positive social behaviour among children, and increased service use to support child and family development
- Reduced negative parenting behaviour

Level of evidence: Medium

Is it cost-effective? There is evidence of cost-effectiveness (50)

Has it been implemented in Australia? Unknown

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Homebuilders (formerly Family Preservation)

Homebuilders is an in-home and community-based crisis intervention, counselling, and life-skills education program for families who have children 0-18 years and at imminent risk of placement in state-funded care (foster care, group care, psychiatric care). The program aims to prevent the unnecessary placement of children and youth into foster care, reduce child abuse and neglect, family conflict, child behaviour problems, and teach families the skills they need to prevent placement or to successfully reunify with their children. (46, 47, 73) Therapists deliver the Homebuilders program to the family in the family home.

Resources and personnel:

- Delivered by a team of 3-5 therapists with qualifications in psychology, social work or counselling, one supervisor with therapist qualifications with at least two years of experience and suitable management experience, and one secretary/support staff.
- The program has training and implementation materials.

Program duration and intensity:

- 3-5 two-hour face-to-face contacts per week, with telephone contact between sessions.
- An average of 4-6 weeks.

Does it work? Data from quasi-RCT show that Homebuilders:

- Reduced out-of-home placement rates or delays in placements of children, and subsequent episodes of maltreatment. (46, 47)

Level of evidence: Low

Is it cost-effective? There is evidence of cost-effectiveness. (47)

Has it been implemented in Australia? Yes

Parenting Programs

Positive Parenting Program (Triple-P)

Triple P is a multilevel parenting program designed to help parents of children 0-16 years develop skills, strategies and confidence to parent children positively. It is designed to create a safe and positive learning environment, and help parents use assertive discipline and have realistic expectations. (35-37) Triple P is offered in five levels:

1. **Universal Triple P**: A media-based information campaign to promote positive parenting.

2. **Selected Triple P**: A one-off information and advice session for parents who are generally coping well but have one or two concerns about child behaviour or development.

3. **Primary Care Triple P**: Targeted counselling for parents of children with mild to moderate behavioural difficulties. Involves advice and information supported by active skills training.

4. **Standard Triple P** (Group Triple P and Self-Help Triple P): targets parents of children with severe behavioural difficulties or parents interested in gaining a more in-depth understanding of positive parenting. It is available for parents of children from birth to 16 years and covers Triple P's core positive parenting skills that can be adapted to a wide range of parenting situations.

5. **Enhanced Triple P:** Focuses on providing intensive support for parents whose family situation is complicated by problems such as partner conflict, stress or mental health issues.

Triple P has flexible delivery modalities including individual face-to-face, group, telephone assisted, and self-directed online programs. It can be delivered in the family home, community settings or in health facilities.

Resources and personnel:

- The personnel requirements to offer Triple P vary depend on the program level implemented, but often include: family support workers, clinicians, nurses, psychologists, counsellors, teachers, teacher's aides, police or child safety officers and social workers. (36, 37)
- Currently, the Triple P online program costs AU$79.95 per parent.
- Triple P has comprehensive resources for both practitioners and parents in multiple languages.

Program duration and intensity:

- Program intensity may range from "light-touch" (parenting information presentation to a large group of parents who are generally coping well but have one or two concerns) to highly targeted interventions for at-risk families.
- Standard Triple P consists of ten one-hour sessions

Does it work? Data from meta-analyses of RCTs show that Triple P has led to: (35-37)

- Short-term improvements in children's social, emotional and behavioural outcomes and parenting practice/s.
- Long-term improvements in children's social, emotional and behavioural outcomes and parenting practice/s behaviour.
- Long-term reductions in substantiated child maltreatment, out-of-home placements, hospitalization, or emergency room visits for child maltreatment injuries.

The program is effective across different settings including schools, community-settings or households.

Level of evidence: Very high

Is it cost-effective? There is evidence of cost-effectiveness at reducing child behavioural and emotional problems and promoting effective parenting. (58)

Has it been implemented in Australia? Yes

GenerationPMTO (formerly Parent Management Training - the Oregon Model)

GenerationPMTO is a structured parenting program for parents of children 2-18 years with disruptive behaviours. It aims to improve positive parenting, reduce coercive family processes, reduce children's externalizing and internalizing problems, child neglect and abuse. GenerationPMTO focuses on core parenting practices such as: skill encouragement, discipline, problem solving, and positive involvement. (14-16, 73) GenerationPMTO is a group-based program that can be delivered face-to-face or by telephone/ videoconference. It can be delivered in the family home, schools, community settings and health facilities.

Resources and personnel:

- Provided by GenerationPMTO therapists, who have completed extensive training on the program (though no other specialized training is required).
- The program has training and implementation manuals.

Program duration and intensity:

- Parent groups: 6-14 one-hour sessions
- Individual clinics: 25 one-hour sessions

Does it work? Data from RCTs show that GenerationPMTO: (14-16)

- Improved social competence, positive parenting and family cohesion
- Reduced youth delinquency, arrests, and problem behaviours

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Unknown

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Incredible Years

Incredible Years is a series of three separate, multifaceted, and developmentally based programs for parents, teachers and children. Incredible Years targets parents of children 0-12 years who are experiencing stress and difficulty in managing their children's behaviour. It is designed to promote emotional and social competence and to prevent, reduce, and treat behavioural and emotional problems in young children. The basic program teaches parenting skills and the advanced parenting program addresses interpersonal skills such as: how parents can effectively communicate with their children and other adults; handle stress, anger and depression management issues; problem-solving between adults. There is also a child training program that focusses on improving children's social competency and reducing conduct problems. (38, 39, 73, 74)

Incredible Years is group-based and can be delivered in the family home, school, community settings or health facilities. In the parent, teacher and child training programs, trained facilitators use video vignettes to structure the content and stimulate group discussions, problem-solving and trigger practices related to participant's goals.

Resources and personnel:

- Provided by therapists, counsellors, social workers, nurses, teachers and physicians who have undertaken standardised Incredible Years training and certification.
- Includes manuals and implementation resources.

Program duration and intensity:

- Parent and child component: one two-hour session per week; classroom program offered 2-3 times weekly for 60 lessons spaced over 18-22 weeks
- Teacher sessions: 5-6 full-day workshops or 18-21 two-hour sessions spaced over 6 to 8 months.

Does it work? Data from RCTs and meta-analysis of quasi-RCTs show that Incredible Years: (38, 39)

- Reduced child problem behaviour and improved foster carers' depression levels
- Strengthened parent management skills and improved children's social and emotional competence.

Level of evidence: Very high

Is it cost-effective? There is evidence of cost-effectiveness at reducing behavioural problems.

(56)

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SafeCare

SafeCare is a structured parenting program to address behaviours that might lead to child neglect and abuse. It is a home-based behavioural skills training program for parents of children 0-5 years who are at-risk for or have been reported for child neglect or physical abuse. Core components of the program include parent-infant/child interaction assessment and training, home safety assessment and training, and child health assessment and training. (44, 73) SafeCare providers work with families in their homes to improve parenting skills, focusing on three areas: (1) parent-infant/child interaction skills, (2) recognising hazards in the home to improve the home environment, and (3) recognizing and responding to symptoms of illness and injury, in addition to keeping good health records.

Resources and personnel:

- Delivered by trained SafeCare providers who have prior experience in delivering a highly structured intervention.
- SafeCare has manuals and implementation tools.

Program duration and intensity:

- Weekly sessions of approximately one to one and a half hours for 18-20 weeks.
- Can be provided by itself or with other services.

Does it work? Data from a cluster RCT and a quasi-RCT show that SafeCare: (33, 34)

- Increased positive parenting
- Improved health and safety of children
- Reduced abuse/ neglect of children

Level of evidence: High

Is it cost-effective? There is evidence of cost-effectiveness

Has it been implemented in Australia? Yes

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Parents under Pressure (PUP)

PUP is an individualised home-visiting, case-management program designed for families with children 0-12 years and with multiple issues that impact family functioning, including depression, anxiety, substance misuse, family violence, and financial stress, and where there is a high risk of child maltreatment. Program components include positive parenting and how to cope under pressure. (44) PUP primarily uses cognitive behavioural therapy (CBT) and mindfulness techniques to improve parental emotional regulation. PUP is delivered in the family home and residential treatment settings.

Resources and personnel:

- Delivered by family support practitioners, social workers, psychologists.
- PUP has supporting materials for implementation.

Program duration and intensity:

- Delivered in flexible formats and duration depending on the needs of the family.
- Ten units are typically delivered over 8-12 sessions lasting 90 minutes.

Does it work? There is a medium level of supporting evidence. Data from quasi-RCTs show that PUP resulted in: (44, 45)

- Reduction in child abuse potential
- Improvements in parental functioning, parent-child relationships
- Reduction in parental stress, rigid parenting attitudes and child problems
- Reduction in parental substance use disorder and risk behaviour

Level of evidence: Medium

Is it cost-effective? There is evidence of cost-effectiveness for preventing child maltreatment. (55)

Has it been implemented in Australia? Available

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Tuning Into Kids (TIK)

TIK is a parenting program for parents of children with disruptive behaviour aged between 18 months and 18 years. The TIK program focuses on parental emotion socialisation practices with the expectation that improving these will lead to improvements in children's emotional competence and behaviour. TIK teaches parents simple emotion coaching skills, including how to recognise, understand, and manage their own and their children's emotions. (75) Facilitators work directly with parents to teach skills in emotion coaching. TIK is delivered to small groups of 6-14 parents in clinical, school and community-based settings.

Resources and personnel:

- Delivered by professionals with a qualification in psychology, social work, occupational therapy, psychiatry, nursing, speech-language therapy, teaching, or medicine.
- Program costs AU$190 per child.
- TIK has implementation and training manuals.

Program duration and intensity

- Weekly two-hour sessions for six weeks

Does it work? Data from quasi-RCTs show TIK led to a: (11-13)

- Reduction in difficult behaviours, including in children with clinical levels of difficulties
- Increase in parental emotion coaching and reductions in emotion-dismissing with their children

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Yes

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Circle of Security Parenting Intervention (COS-P)

COS-P is designed to assist parents to provide their children with the emotional support needed to develop secure attachment and resilience, and to decrease parents' negative attributions about their child. It is for parents of at risk children 0-6 years with emotional regulation problems, disruptive behaviours, aggression and withdrawal. (76) COS-P combines psycho-educational, cognitive-behavioural and psychodynamic understanding and intervention techniques for promoting attachment and autonomy in the parent–child relationship. COS-P is delivered in small groups or one-on-one in a centre or the family home. Facilitators present the course using the circle graphic, animations, handouts and video examples of parents interacting with their children.

Resources and personnel:

- Delivered by facilitators who have completed a 4-day training course; no specific prerequisite qualification or post-training supervision requirements.
- Indicative costs are: AU$650 to 2,700 per person (depending on the intensity and components of the program)

Program duration and intensity

- One 90-minute session per week for eight weeks

Does it work? Data from an RCT and quasi-RCT show that, COS-P led to a: (references 1-3)

- Reduction in unsupportive maternal response to child distress.
- Reduction of disorganized and insecure attachment in high-risk toddlers and preschoolers.

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Yes

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Parent–Child Interaction Therapy (PCIT)

PCIT is designed to reduce behavioural problems and improve the parent-child relationship in vulnerable children 0-12 years. (18) PCIT is conducted through coaching sessions during which a therapist in an observation room watches a parent interact with their child through a one-way window and/or live video feed. (28, 73) The first phase, child-directed intervention, instructs parents to play in a nondirective way with their child while a therapist sits behind a two-way window and coaches the parent in how to interact and respond to their child's cues via an earphone. The second phase, parent-directed intervention, introduces limit-setting and demands to the child while the parent continues to receive coaching via an earphone. As children are challenged, maladaptive reactions can be corrected in the therapeutic setting. PCIT coaching sessions are delivered in outpatient clinics and community-based organisations.

Resources and personnel:

- Delivered by a qualified psychologist or therapist, who has undertaken PCIT training.
- A complete PCIT program costs US$5,480 (AU$7,905) per family.
- PCIT has training and implementation resources.

Program duration and intensity:

- Weekly one-hour sessions for approximately 14 weeks. However, families remain in the program until parents have demonstrated improvement of the treatment skills and rate their child's behaviour as within normal limits on a standardized measure of child behaviour.

Does it work? Data from a review of RCTs show that PCIT resulted in: (26-28)

- Improved parenting skills, child problems, and parental stress.
- Reductions in child maltreatment

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Available

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Adults and Children Together Against Violence (ACT Raising Safe Kids Program)

The ACT Raising Safe Kids Program aims to promote positive parenting and prevent child maltreatment by sharing knowledge and teaching skills to improve parenting practices. It is for all expectant couples and parents of children 0-10 years. The essential components include understanding children's behaviours, impact of exposure to violence, discipline and positive parenting styles. (19, 23, 77, 78) The program is delivered face-to-face to small groups of 10-12 parents in hospitals, outpatient clinics, schools and community settings.

Resources and personnel:

- Delivered by trained and certified ACT facilitators (with an associate degree or bachelor's degree) and experience with an organisation that serves families and/or experience with teaching groups of adults.
- The program has training and educational materials.

Program duration and intensity:

- Weekly two-hour sessions for nine weeks.

Does it work? Data from quasi-RCTs show that ACT resulted in: (19, 22, 23)

- Reduction in child physical abuse and neglect
- Improvement in parent knowledge in anger management, social problem-solving and non-violent discipline.

Level of evidence: Medium

Is it cost-effective? Unknown

Has it been implemented in Australia? Unknown

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Chicago Child–Parent Center preschool program (CPC Program)

The CPC Program provides educational and family support services for children 3-9 years from low-income families. A CPC collaborative team coordinates services and education for students and their families. Parents can also engage in vocational and educational training available at the CPC centres. Children enrolled in CPC centres receive free breakfast and lunch daily. (31, 32, 73) Parents visit their child's school at least one half-day per week to facilitate parent-child interactions, parent and child attachment to school, and mutual parental support. CPC staff conduct home visits and refer families to social service agencies as needed. CPC uses video vignettes depicting parent-child interactions to stimulate discussion and problem solving related to managing children's behaviour in challenging situations.

Resources and personnel:

- Head teacher (whose role is to support coaching of teachers, administration of the program, recruitment and enrolment); parent resource teacher (whose role is to support parent workshops, child development and parenting, health and safety); and a school community representative.
- CPC sessions are facilitated by two trained group leaders.
- Requires strong support from agency leadership
- Annual costs are approximately US$5,600 (AU$8,067) per child per year for the preschool component, and US$2,000 (AU$2,800) per year for the supplementary school age component.
- The program includes training and educational materials.

Program duration and intensity:

- CPC requires parents to participate for at least two and a half hours each week, which can be a combination of both in-school parent activities or at home activities.

Does it work? Data from quasi-RCTS show that CPC was associated with: (31, 32)

- Reduced child maltreatment, increased parental engagement, increased school completion rates and reduced juvenile delinquency

Level of evidence: High

Is it cost-effective? There is evidence of cost-effectiveness. (52)

Has it been implemented in Australia? Unknown

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Home Visiting

Community Child Health Nurse home visiting program - Australia

This is a postnatal home-visiting program delivered by community-health nurses to families experiencing adversity, such as domestic violence, single parenthood, and socio-economic disadvantage. The program focuses on improving home environment, parent-child interactions, parental knowledge and practice of child safety. Community Health Nurses encourage and facilitate families' involvement in parenting groups and links to local community activities and support services. The program is for parents of children 0-2 years who are experiencing adversity. (79-81)

Resources and personnel:

- Specially trained community health nurses.

Program duration and intensity:

- The number of nurse-visits per family range from 18-34. The maximum number may be exceeded where negotiated between families and nurses.

Does it work? Data from RCTs show that postnatal community-child health nurse home visitation programs: (42, 43)

- Improved parenting and home environment determinants of children's health and development, however most home visiting programs are not rigorously evaluated.

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Yes

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right@home

right@home is an Australian model of a nurse home visiting program delivered to families experiencing adversity. It is designed to improve parent care (e.g. feeding, sleeping and safety), parent responsivity (bonding with baby) and create a supportive home environment (to foster language and literacy). (53, 82) Program content focuses on enabling families to enhance their coping and problem-solving skills; fostering positive parenting skills; mentor maternal-infant bonding and attachment; and providing proactive primary health care and anticipatory health education. right@home is for parents of children 0-2 years who are experiencing adversity (such as: parents who have poor global health, long-term illness, smoking, experienced teenage pregnancy, unemployment, no household income, anxious mood, no support in pregnancy, not living with another adult).

Resources and personnel:

- Delivered by a specially trained maternal and child health nurse, who is further supported by a social worker.
- The social worker provides support for the nursing team and facilitates support for the families, including advocating for and assisting families with housing, service access, and financial issues.
- At least one full-time social worker is required per 100 families in the program.

Program duration and intensity

- 25 home visits (of approximately 60–90 min)
- Three visits are scheduled antenatally, and the remainder continue until the child reaches 2 years of age.

Does it work? An RCT showed the following effects of right@home when children in participating families were 2 years old: (53)

- Improvement in parenting skills, and home environment determinants of children's health and development (such as, parental responsivity, acceptance of the child, organisation of the environment, learning materials, parental involvement, and variety in experience)

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Yes

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Healthy Families America (HFA)

HFA is a home visiting program designed to build and sustain community partnerships to systematically engage families in home visiting services prenatally or at birth, strengthen parent-child relationships, and enhance family functioning. HFA voluntarily enrols families referred from children's protective services with a child up to 2 years, offering services for at least three years. HFA has 12 essential components, including providing outreach services to build family trust, promoting positive parenting and linking families to medical and social services. The first step involves identification of expectant or new parents who have moderate to high risk for child maltreatment and/or poor early childhood outcomes. HFA services are then offered to the primary caregiver, although other interested family members can also attend the home visit sessions. In addition to the services provided at the family home, parents are linked to other services in the community as needed.

Resources and personnel:

- HFA is conducted by family support workers who live in the same communities as program participants and share their language and cultural background.
- The program has resources and manuals to assist with its implementation.

Program duration and intensity:

- Weekly one-hour home visits for a minimum of six months after the birth of the baby.
- Visit frequency is reduced to biweekly, monthly, and quarterly, and services are eventually tapered off over time.

Does it work? Data from RCTs study show that HFA: (3-5)

- Improved child behaviour and well-being and positive parenting behaviour.
- However, there was no conclusive evidence of the benefit of HFA for preventing child abuse and neglect.

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Unknown

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Parents as Teachers (PAT)

PAT is an early childhood parent education, family support and well-being home visiting program for expecting parents and parents of children 0-5 years. The program is for teen parents, low-income families and families with a history of substance use disorders and low educational attainment. PAT is designed to increase parent knowledge of early childhood development, improve parenting practices, and prevent child abuse and neglect. (10) The program focuses on parent-child interaction, and family well-being, such as family strengths, capabilities, skills, and the building of protective factors. PAT also involves annual screening of child health and well-being, parental depression, substance use disorder and intimate partner violence. (48, 49) Trained PAT educators visit parents and/or caregivers in their home to strengthen protective factors and ensure that young children are healthy and safe. PAT educators use the PAT curriculum to provide parents with information on child development and involve parents in age-appropriate activities with their children. Parents also participate in group meetings with other parents.

Resources and personnel:

- Involves the training and certification of parent educators.
- Requires a PAT educator and a supervisor (one supervisor for around 12 educators).
- PAT has a licensed toolkit to assist with its implementation.

Program duration and intensity:

- At least 12-24 one-hour home visits annually for at least two-years depending on the level of risk and needs.

Does it work? Data from RCTs and quasi-RCTs show that:

- PAT did not improve parenting skills, although modest improvements were demonstrated in some areas of child development. (48, 49)

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Yes

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Nurse-Family Partnership (NFP)

NFP is a home visiting program that aims to decrease risk factors associated with child maltreatment and reduce the occurrence of child maltreatment. Registered nurses provide home visits to first-time, low-income mothers, beginning during pregnancy and continuing through to the child's second birthday. NFP focuses on improving prenatal health (nutrition; reducing alcohol/tobacco/drug use during pregnancy; obtaining prenatal care), and childcare (creating a safe and supportive home environment). (8, 73)

Resources and personnel:

- Delivered by registered nurses
- NFP costs a total of US$10,000 (AU$14,300) per family, for the complete 2.4-year program, or around US$500,000 (AU$717,000) per year for 100 families
- Resources and manuals are available to assist with implementation

Program duration and intensity:

- Weekly 60-90 minute home visits during pregnancy (from about 16 weeks gestation) through to the first six weeks after the baby is born, and then every other week.

Does it work? Data from RCTs show that NFP: (6-8)

- Improved parent-child interaction and decreased child abuse and neglect
- Compared with paraprofessionals, NFP delivered by nurses was more effective

Level of evidence: High

Is it cost-effective? Cost-effective for preventing child maltreatment. (59)

Has it been implemented in Australia? Unknown

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Attachment and Biobehavioural Catch-up (ABC)

The ABC program aims to help parents to re-interpret children's behavioural signals so that they provide nurturance even when it is not elicited, and help caregivers provide a responsive, predictable, warm environment that enhances young children's behavioural and regulatory capabilities. ABC is designed for caregivers of infants six months to two years who are at risk for neglect and/or maltreatment. (83) Throughout all sessions, the ABC coach observes the parent's behaviour and makes comments on behaviours that relate to the intervention targets. The ABC coach provides "in the moment" feedback about the parent's interactions with their child. Parents are expected to observe and note the child's behaviour and practice new skills with them between sessions. ABC is delivered to families in their home setting.

Resources and personnel:

- Delivered by clinicians with excellent interpersonal skills.
- There is no educational level requirement for parent coaches. Potential parent coaches participate in a screening prior to training.
- Has resources available for implementation.

Program duration and intensity:

- Weekly one-hour home visiting sessions for ten weeks

Does it work? Data from RCTs show that ABC: (1, 2)

- Improved parental sensitivity and child behaviour problems

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Unknown

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Home Instruction for Parents of Preschool Youngsters (HIPPY)

HIPPY is a home-based and parent-involved program designed to help with parenting skills to prepare children for school. HIPPY is for parents of children 3-5 years and who have limited formal education. (73) HIPPY provides parents with a curriculum, set of books, and materials designed to strengthen their child's cognitive skills, as well as their social, emotional, and physical development. Trained coordinators and community-based home visitors go into homes to role-play activities with the parents and support families throughout their participation in the program.

Resources and personnel:

- HIPPY uses trained coordinators and community-based home visitors.
- HIPPY has a curriculum and other implementation materials.

Program duration and intensity:

- Up to 30 one-hour home visits. Visits can be spread over three years.
- Parents then engage their children in educational activities for five days per week for 30 weeks.
- At least six group meetings per year, involving the HIPPY coordinator and other parents participating in the same program.

Does it work? Data from meta-analysis of quasi-RCTs show that HIPPY: (29, 30)

- Improved child behaviour and cognitive stimulation in the home environment, and parent engagement.

Level of evidence: Medium

Is it cost-effective? Unknown

Has it been implemented in Australia: Available

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Healthy Start Program (HSP)

HSP is a home visiting program designed to promote child health and development and to prevent child abuse and neglect by improving family functioning in general and parenting in particular. HSP covers parenting education, stress management, and care coordination to help families learn about resources available in the community and offers assistance in accessing those services before the onset of maltreatment. (9, 10) HSP is for parents of children 0-3 years and at risk of child abuse. It involves early identification of eligible families through medical record review by paraprofessionals. Home visitors provide direct services, including emotional support to parents, encouraging them to seek professional help where needed, education about child development, and role-modelling parenting skills and problem-solving techniques.

Resources and personnel

- HSP is delivered by home visitors, who are trained paraprofessionals working under professional supervision.
- HSP has an established tool for screening at-risk families and guiding its implementation.

Program duration and intensity:

- HSP uses individualised service plans and therefore, the intensity of HSP varies. Most new families are expected to need weekly visits, or at least every six months, for three to five years.

Does it work? Data from quasi-RCTs show that HSP: (9, 10)

- Reduced incidence of neglect
- HSP does not impact parental risk factors for child maltreatment, the occurrence of physical punishments or physical abuse

Level of evidence: Medium

Is it cost-effective? Unknown

Has it been implemented in Australia? Yes

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Home-based Early Head Start Program (EHS)

EHS is designed to reduce parents' potential for child abuse. The program is for low-income pregnant women and families with children 0-3 years. EHS components include non-violent discipline methods, stress management and communication and family support services. Service components and models vary depending on the needs of the local community. Usually, EHS is designed to fit the needs of the local community and services can be provided at home or at centre-based services (such as family childcare) and include parent education, parent-child activities, and health and mental health services.

Resources and personnel:

- Trained home visitors provide EHS home visiting services.
- The program has resources and manuals to assist with its implementation.

Program duration and intensity:

- Weekly 90-minute home visits for at least 46 sessions per year and two group socialisation activities per month for parents and their children

Does it work? Data from RCTs show that EHS resulted in: (17, 18)

- Reduction in child maltreatment, including physical and sexual abuse

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Yes

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Economic Interventions

Income Supplementation and Maintenance (ISM)

ISM refers to a set of interventions designed to provide financial support to low-income families, including through refundable income tax, cash assistance, financial work incentives and compulsory-welfare management (such as constraining how welfare recipients can spend their income support payments, limiting their ability to access cash and purchase some products). (51)

Resources and personnel:

- ISM programs are publicly funded.

Program duration and intensity:

- The amount of financial supplementation or maintenance varies by income, marital status, and number of children. (51)

Does it work? Data from a meta-analysis of quasi-RCTs show that ISM interventions: (51)

- Decreased household crime of both parents
- Increased household substance use
- Had no effect on domestic abuse, quality of the home environment and household mental illness

There is no conclusive evidence of ISM on child neglect, child maltreatment, physical abuse, family financial problems, parenting practices or parental separation. Overall, there is limited evidence of the effectiveness of ISM in reducing ACEs.

Level of evidence: Medium

Is it cost-effective? Unknown

Has it been implemented in Australia? Currently, the Commonwealth of Australia's social security program provides financial assistance to people with inadequate or no income, including the child support scheme that provides financial support for children whose parents have separated. Its effects on ACEs are unknown. However, the compulsory income management program, which was piloted in Indigenous Australians, was associated with increased household substance use. (60)

Housing Assistance

Housing interventions refer to financial assistance provided to low-income families to buy a house, or vouchers that can be used to help pay the rent for housing, and they are intended to reduce financial strain, particularly related to housing. (51)

Resources and personnel:

- Offered by homeless shelters, welfare agencies, and community health centres

Program duration and intensity:

- The type and amount of housing assistance varies

Does it work? Data from a meta-analysis of quasi-RCTs show that housing interventions: (51)

- Reduce childhood victimisation, but have no effect on parental separation
- Effects on other ACEs have not been evaluated. Overall, there is limited evidence of the effectiveness of housing interventions in reducing ACEs.

Level of evidence: Medium

Is it cost-effective? Unknown

Has it been implemented in Australia? There is no research on housing interventions to address ACEs in Australia. However, the Australian Government via the Department of Social Services provides support to those in need of affordable housing.

Welfare Reform and Employment Services

Welfare reform refers to changes to whether and how welfare recipients benefit from the welfare assistance program. A range of welfare reform programs have been identified, including helping parents to gain the skills needed for employment, and to become financially independent, minimum wage legislations, reducing the time when adults eligible for jobs qualify for welfare, and encouraging responsible parenting. (84-86)

Resources and personnel:

- Can be introduced as legislation or policies and are administered by government agencies such as the Department of Social Services, Administration for Children and Families

Program duration and intensity: The extent and type of services could vary.

Does it work? Data from meta-analysis of quasi-RCTs show that: (51)

- Welfare reform had no effect on the quality of the home environment, adverse parenting practices, family financial hardship, exposure to domestic violence, child sexual or physical abuse, and separation from family.
- There is no robust evidence on the effect of welfare reform on household mental illness, child maltreatment or neglect.
- Overall, there is a lack of robust evidence of welfare reform interventions in reducing ACEs.

Level of evidence: Medium

Is it cost-effective? Unknown

Has it been implemented in Australia? There have been several welfare reforms in Australia. The Newstart Allowance, offered by the Commonwealth government, provides income support payment while people are unemployed and looking for work.

Psychological Therapies

Psychological therapy for children exposed to trauma

The effectiveness of psychological therapy, mainly cognitive behaviour therapy (CBT) and interpersonal therapy (IPT), in reducing the transgenerational transmission of mental disorders has been investigated in several studies. (57, 87) These interventions focus on enhancing mother-child interactions, the mother's sensitivity to her child, and positive parenting. They involve different approaches, including psychoeducation, cognitive restructuring, behavioural activation, and problem-solving. Psychological therapies can be delivered one-on-one or group-based in a variety of settings such as the home or clinic.

Resources and personnel:

- Delivered by trained nurses and psychologists

Program duration and intensity:

- Ranges from 2-33 one-hour sessions

Does it work? Data from meta-analyses of RCTs showed that psychological therapies: (57)

- Improved mother-child interaction
- Reduced global psychopathology and internalizing problems in children
- Engaging parents and children jointly produced larger effects

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Yes

School-based Programs

School-based child sexual abuse prevention

A wide range of school-based education programs have been implemented to prevent child sexual abuse. (54) Most of these programs share several core components, including the teaching of safety rules, body ownership, private parts of the body, distinguishing types of touches and types of secrets, and who to tell. The programs are for primary and secondary school students and are delivered in a group-based setting in schools. Programs utilize film, video or theatrical plays, and multimedia presentations followed by rehearsal, practice, role-play, discussion, and feedback.

Resources and personnel:

- Delivered by school psychologists, school social workers, school nurses, and teachers who have received training in school sexual abuse prevention.

Program duration and intensity:

- The duration of interventions ranges from a single 45-minute session to eight 20-minute sessions on consecutive days.

Does it work?: Data from meta-analysis of RCTs, and quasi-RCTs show that school-based sexual abuse prevention programs are: (54)

- Effective in increasing protective behaviours and knowledge of sexual abuse prevention.
- Not effective on children's anxiety levels.

Level of evidence: High

Is it cost-effective? There is evidence of cost-effectiveness

Has it been implemented in Australia? Yes

School-based anti-bullying programs

Most anti-bullying programs share common aims including an increase in children's self-awareness, relationship skills, and responsible decision-making as well as teaching how children might appropriately respond to bullying. (40, 41) In addition to addressing traditional bullying, some programs include cyberbullying prevention by focusing on improving children's empathy to others, and awareness and knowledge about cyberbullying, including prevention strategies. School-based anti-bullying programs are delivered to school children either face-to-face in the school setting or online. Activities can involve bullying-related vignettes and materials, mindfulness exercises and reflection.

Resources and personnel:

- Delivered by professionals from multiple sectors, including public health services and multidisciplinary professionals and/or personnel including principals, teachers and clinical psychologists.

Program duration and intensity:

- Ranges from three weekly 30-minute sessions to one session per month.

Does it work? Data from meta-analyses of RCT and quasi-RCT show that anti-bullying programs: (40, 41)

- Reduce bullying perpetration and bullying victimisation.

Level of evidence: High

Is it cost-effective? Unknown

Has it been implemented in Australia? Yes

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Appendix 1 – Search strategy

We searched the peer-reviewed literature to identify research evidence on interventions to prevent ACEs and/or ameliorate their negative impacts that were published between January 2010 and January 2020. We searched PsycINFO (Ovid), PubMed, and Embase, Cochrane Database of Systematic Reviews, and Cochrane Controlled Register of Trials (Central) for interventions that aim to prevent the occurrence of ACEs or reduce their impact on mental health. Further inclusion criteria were that papers needed to be published in the English language between 2010 and 2019. We also searched grey literature, reference lists of included studies, and relevant databases including, Centers for Disease Control, California Evidence-Based Clearinghouse for Child Welfare (USA), Australian Institute of Family Studies, Department of Social Services, Department of Health, and Department of Education and well-known international and Australian websites. Search terms included:

Medline .mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms

PsycINFO .mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh

1. (Adverse childhood experience* or childhood adverse experience* or childhood stressful life event* or adverse experience* in childhood or adverse experience* in early childhood or adverse childhood event* or adverse family-life event* or adverse family-life experience* or childhood Adversity or Psychological abuse or Physical abuse or Sexual abuse or Emotional abuse or Neglect or Maltreatment or discrimination or Bullying or Traumatic experience* or Economic adversity or Unsafe neighbourhood* or Unsafe neighborhood* or Violence or Homelessness or Maladaptive parent*).ti,ab

2. Prevention OR Intervention* OR Randomi* control* trial* OR Quasi-experiment* OR Reduce OR Avoid* OR Mitigation OR Resilience OR Minimi* OR Improv* OR Modif* OR Health OR promotion OR Education OR Program* OR Initiative* OR Strateg*

3. Child* OR adolescen* OR toddler* OR teen* OR preteen* OR youth OR infant* OR baby OR young* OR kid* OR offspring* OR early life

4. Anxi* OR depress* OR internaliz* OR internalis* OR Suicid*

5. #1 AND #2 AND #3 AND #4

6. Filters: Publication date from 2009/01/01 to 2019/11/26; Humans; English

7. Results after filters applied: 24,099

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Appendix 2

National Health and Medical Research Centre (NHMRC) levels of evidence

NHMRC evidence level	Category descriptor used in review	Description-evidence obtained from:
I	Very high	Systematic review of all relevant randomized controlled trials
II	High	At least one randomized controlled trial
III-1	Medium	Pseudorandomized controlled trials (alternate allocation or some other method)
III-2	Medium	Comparative studies with concurrent controls (such as cohort studies, case-control studies, interrupted time series with a parallel control group or non-randomized experimental trials)
III-3	Medium	Comparative studies without concurrent controls, such as historical controls, two or more single-arm studies, or interrupted time series without a parallel control group
IV	Low	Case-series, either post-test, or pre-test/post-test

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