

CHILDREN'S MENTAL HEALTH RESEARCH

Quarterly

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Helping children who have been maltreated

OVERVIEW

The diverse consequences
of child maltreatment

REVIEW

Building resilience





Children's
Health Policy
Centre

About the Children's Health Policy Centre

We are an interdisciplinary research group in the Faculty of Health Sciences at Simon Fraser University. We focus on improving social and emotional well-being for all children, and on the public policies needed to reach these goals.

To learn more about our work, please see childhealthpolicy.ca.

About the Quarterly

We summarize the best available research evidence on a variety of children's mental health topics, using systematic review and synthesis methods adapted from the *Cochrane Collaboration* and *Evidence-Based Mental Health*. We aim to connect research and policy to improve children's mental health. The BC Ministry of Children and Family Development funds the *Quarterly*.

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The diverse consequences of child maltreatment

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Helping children with bipolar disorder

Controversies persist with diagnosing bipolar disorder in children. We discuss these controversies and review new treatment options for young people facing this diagnosis.

How to Cite the Quarterly

We encourage you to share the *Quarterly* with others and we welcome its use as a reference (for example, in preparing educational materials for parents or community groups). Please cite this issue as follows:

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The diverse consequences of child maltreatment

Child maltreatment in its various forms is a preventable form of adversity that violates children's rights.¹ Canada has long been committed to the UN Convention on the Rights of the Child to protect children and ensure that their needs are met.² Yet many Canadian children still experience maltreatment.¹ While prevention is *always* paramount, it is crucial to appreciate the diverse consequences of maltreatment. It is also key to understand what protects children who have been maltreated, to ensure their well-being and help them to recover.

Researchers conducting observational studies have provided critical data by investigating outcomes for large groups of children, comparing those who experienced maltreatment and those who did not. Here, we highlight three such studies, which also illustrate the diverse consequences children may experience due to maltreatment.

Links between maltreatment and mental disorders

The Environmental Risk Longitudinal Twin Study investigated 2,232 children representative of the British population. Researchers interviewed young people at age 18 to determine whether they had met diagnostic criteria for four common mental disorders within the past year, and whether they had had any episodes of self-injury, including suicide attempts, within the past six years.³ Researchers also asked these young people about past neglect as well as physical, emotional and sexual abuse. Those who reported being maltreated before age 12 were significantly more likely to have mental health problems, including the following:

- generalized anxiety (three times the odds with one type of maltreatment; four times with two or more types)
- alcohol or cannabis dependence (three times the odds with one type of maltreatment; five times with two or more types)
- conduct disorder (four times the odds regardless of number of types)
- depression (three times the odds with one type of maltreatment; nine times with two or more types)
- self-injury (four times the odds with one type of maltreatment; 13 times with two or more types)³

Working to promote well-being despite adversity

The National Comorbidity Survey of Adolescents also provided critical information on children's struggles and successes, examining more than 10,000 youth representative of the population in the United States.⁴ Researchers asked participating 13- to 17-year-olds about past neglect, physical and sexual abuse as well as emotional abuse, including exposure to intimate partner violence. The young people were asked to rate their



While the prevention of child maltreatment remains the ultimate goal, it is also important to support children when prevention has not been possible.

Positive self-esteem was the strongest protective factor, increasing the young person's likelihood of good mental health more than eightfold.

own mental health and were interviewed to determine whether they met diagnostic criteria for common childhood mental disorders or had any suicidal ideation over the past year. Researchers then classified the young people's mental health based on these two forms of data.

Among youth who had been maltreated:

- 32.4% had good mental health (vs. 54.9% of youth who had not been maltreated)
- 53.6% had moderate mental health (vs. 40.5% of youth who had not been maltreated)
- 14.0% had poor mental health (vs. 4.6% of youth who had not been maltreated)

The data showed that experiencing any type of child maltreatment was associated with increased odds of a young person being classified as having poor mental health.⁴ Specifically, the odds of having poor mental health were between 3.2 and 9.5 times greater. These odds depended on the type of maltreatment experienced, with neglect having the lowest odds and sexual abuse having the highest. As well, the odds of having poor mental health increased when children experienced more than one type of maltreatment.

Good mental health despite the odds

Yet notably, nearly one-third (32.4%) of maltreated youth had good mental health according to this study. To help understand what might have helped these young people flourish, researchers examined their relationships as well as their school and community experiences.⁵ Those with good parental supports — including emotional closeness, good communications and the perception that a parent understood their worries or problems — had better mental health. In fact, relationships with mothers emerged as the strongest protective factors among the relationship variables, increasing the odds of good mental health at least fourfold.

New legislation aims to help Indigenous children

BC recently passed new child protection legislation to ensure that Indigenous communities are consulted when there are questions about their children's well-being. The Child, Family and Community Service Amendment Act aims to reduce the number of Indigenous children being removed from their families while giving communities more control. Specifically, the act ensures that Indigenous people are informed when safety concerns are raised about a child from their communities — and gives communities a chance to develop plans to support children and prevent them from being taken into foster care.

As well, Indigenous traditions are now formally included in determinations of what is in the child's best interest. For example, the act affirms that children are entitled to "learn about and practise their Indigenous traditions, customs and languages, and belong to their Indigenous communities."⁶ This recognition of the rights of Indigenous children and communities takes one step on the pathway in bringing about truth and reconciliation — an essential call to action for all British Columbians and all Canadians.

The data also showed that closeness between family members in general and support from siblings or friends were also protective factors. Positive school experiences — including believing that teachers were fair, caring about teachers' perceptions of them, liking their school and their teachers, trying hard at school and valuing good grades — also contributed to mental well-being. Finally, liking one's neighbourhood was a protective factor.

Researchers with this same study also examined whether young people's attitudes and beliefs could be protective even when they had been maltreated.⁴ They found that young people who used positive coping strategies were significantly more likely to have good mental health, despite their experiences. These strategies

included keeping calm, analyzing problems and following through on action plans.

As well, young people who believed they had some control in their lives were also more likely to have good mental health. These beliefs included thinking that their actions could influence their lives, having confidence in their ability to make their plans work and expecting that their hard work would pay off. Having positive self-esteem and being physically active several times per week were also protective factors. In fact, positive self-esteem was the strongest protective factor, increasing the young person's likelihood of good mental health more than eightfold.

Importance of gene-environment interactions

The Dunedin Longitudinal Study has shed further light on why some children thrive despite experiencing maltreatment. This study has followed more than 1,000 children representative of the population in New Zealand for more than 40 years — beginning at birth, with ongoing data collection.⁷ Among other questions, researchers set out to determine why some males who experienced child maltreatment developed antisocial behaviour in adulthood while others did not.⁸

Researchers tracked child maltreatment experiences when children were young (ages three to 11). Then they measured antisocial behaviour using robust outcome indicators, including adolescent conduct disorder diagnoses, adult violent criminal convictions and adult antisocial personality symptoms. At the same time, the team assessed differences in the activity of a gene known as monoamine oxidase A (MAOA), which is involved in regulating neurotransmitters such as serotonin, norepinephrine and dopamine that are crucial for mental health.

In particular, they wanted to learn how low-MAOA activity contributed to the development of antisocial behaviour, and how gene activity might be influenced by “environmental” adversities such as child maltreatment. They found that low-MAOA activity was indeed significantly linked with all measures of antisocial behaviour — when coupled with child maltreatment.⁸ In other words, child maltreatment greatly increased the likelihood of boys developing antisocial behaviour when they had predisposing genetic profiles.

Gene-environment interactions and the crucial role of child maltreatment have now been replicated, including for other mental health problems, such as depression.⁹ These studies point to the importance of intervening early to prevent avoidable adversities such as child maltreatment.

Studies of protective factors have played a crucial role in identifying why some children thrive despite experiencing maltreatment while others do not.

Applying knowledge, supporting children

Studies of protective factors, such as supportive adult relationships, have played a crucial role in identifying why some children thrive despite experiencing maltreatment, while others do not. This knowledge has also contributed to the development of interventions to better support children. While the prevention of child maltreatment remains the ultimate goal, it is also important to support children when prevention has not been possible. In the [Review article](#) that follows, we describe a number of interventions for children who have been maltreated. 🙌

Prevention is paramount

One of the most important ways to ensure children’s positive development is to address social determinants of health, including the prevention of maltreatment. Our [Summer 2018 issue](#) identified effective interventions for meeting this child health and child rights goal.

Building resilience

Children who have been maltreated have diverse outcomes, and many do not have lasting negative behavioural or emotional consequences.⁴ Yet many do develop mental health concerns. Through a systematic review of relevant studies, we aimed to determine which interventions are most effective for helping when children have been maltreated.



The best way to help children flourish is to support families to meet children's basic needs, including preventing maltreatment.

This review expands on work from our [Fall 2012 issue](#), which identified two programs that helped children who had been exposed to intimate partner violence (IPV) — a form of emotional abuse. With Child-Parent Psychotherapy, practitioners provided 50 weekly in-home sessions for mothers and their preschool children, focused on encouraging positive parenting and positive child behaviours.¹⁰ The program effectively reduced children's behaviour problems at six-month follow-up.¹⁰

With Project Support, practitioners provided home-based supports for up to eight months, addressing parenting, safety and problem-solving with mothers. Trained university students also provided children with support and positive role modelling.¹¹ Program benefits for children

included reductions in oppositional defiant and conduct disorder diagnoses, emotional problems, and physical abuse. Children also experienced greater happiness and improved social relationships.^{12–14}

To identify additional effective interventions, we searched for [randomized controlled trials](#) (RCTs) evaluating treatments for children who had been maltreated, without limiting our searches according to maltreatment type or to specific behavioural or emotional concerns. We retrieved and assessed 68 studies. Six new RCTs met our inclusion criteria, evaluating seven different interventions. (For more on our search strategy and inclusion criteria, please see our [Methods](#).)

Project Support helped young children, including reducing physical abuse, conduct disorder diagnoses and emotional problems.

Three interventions, assessed in two RCTs, focused on improving relationships between caregivers and their toddlers in families where maltreatment had occurred: Child-Parent Psychotherapy,¹⁵ Psycho-Educational Parenting¹⁵ and Promoting First Relationships.¹⁶ The remaining four interventions focused on preventing or treating mental health issues for maltreated children and youth: the Incredible Years Dina Program for Young Children (adapted version),¹⁷ Fostering Healthy Futures,¹⁸ It's My Turn Now¹⁹ and Multisystemic Therapy for Child Abuse and Neglect.²⁰ The next sections describe these two groups of programs and their outcomes.

Helping toddlers and parents

Child-Parent Psychotherapy, Psycho-Educational Parenting and Promoting First Relationships each focused on promoting positive psychological connections (i.e., “secure attachment”) between caregivers and toddlers.^{15–16} The first two interventions, which were evaluated in a single RCT, also aimed to prevent toddlers from developing behavioural and emotional difficulties.¹⁵ Participants in all three programs were in the United States.

All mothers and toddlers participating in Child-Parent Psychotherapy and Psycho-Educational Parenting came from families where child maltreatment had occurred.¹⁵ However, study authors noted that only 66% of participating toddlers had been maltreated. (The remaining 34% were siblings of the toddler.) Study authors did not identify whether participating mothers were the perpetrators of the maltreatment.

With Child-Parent Psychotherapy, practitioners saw mothers and toddlers in their homes weekly for one year. Practitioners provided empathic responses during exchanges between the pair to encourage positive and sensitive interactions and to challenge mothers' inaccurate and negative views of themselves and their children.¹⁵ With Psycho-Educational Parenting, practitioners also saw mothers in their homes weekly for one year. However, for this intervention practitioners taught mothers a variety of skills, including parenting and more general problem-solving and relaxation, while also connecting them to social supports. Families in the comparison group received standard child protection interventions consisting of case management, which included referrals to additional services and resources.

Promoting First Relationships reduced apprehensions from the home due to maltreatment.

In comparison, all families participating in the Promoting First Relationships evaluation had open cases with child protection services due to maltreatment allegations.¹⁶ Study authors noted that the participating toddler was the alleged victim in 88% of families. Although the study authors did not identify whether participating caregivers were the alleged perpetrators, they did note that 91% of participating caregivers were birth mothers and 9% were birth fathers. Practitioners saw each caregiver and child in their home weekly for 10 weeks. Practitioners provided feedback, using videotapes of caregiver-child interactions to help build parenting competence and commitment to the child.^{16,21} Comparison caregivers received a list of community-based resources following a brief needs assessment. Table 1 summarizes the three interventions that focused on toddlers.

| Program | Approach | Sample size | Children's ages (Country) |
|---|---|--------------------|--------------------------------------|
| Child-Parent Psychotherapy | Weekly sessions delivered to mothers + children in homes over 1 year; aimed at promoting positive attachment | 137 | 1 year (United States) |
| Psycho-Educational Parenting* ¹⁵ | | | |
| Promoting First Relationships ¹⁶ | Weekly sessions delivered to caregivers + children in homes over 10 weeks; aimed at promoting positive attachment | 247 | 10 months to 2 years (United States) |

* While toddlers were present in the home, the intervention was focused on mothers.

Outcomes for toddler-parent interventions

The RCT comparing Child-Parent Psychotherapy and Psycho-Educational Parenting assessed three relevant outcomes at one-year follow-up.¹⁵ Significantly more Child-Parent Psychotherapy toddlers had a “secure attachment” to their mothers (40.5%) compared with Psycho-Educational Parenting toddlers (17.9%), and compared with controls (11.8%).¹⁵ The clinical significance of this outcome was moderate (Cramer's $V = 0.25$ compared with Psycho-Educational Parenting; $V = 0.28$ compared with typical services). Still, neither intervention had a significant impact on children's behavioural or emotional well-being.

Meanwhile, eight relevant outcomes were reported for Promoting First Relationships. At three-month follow-up, no significant differences were found between intervention and comparison children regarding either emotional regulation skills or their engagement in exploratory behaviours.¹⁶ Similarly, at six-month follow-up, no significant differences were observed regarding behaviour problems, social and emotional competence, or children's ability to manage brief separations from caregivers. However, intervention children showed significantly fewer negative behaviours and emotions toward their caregivers compared with controls.

At one-year follow-up, researchers also assessed crucial child maltreatment outcomes for Promoting First Relationships. Although there were no significant differences between intervention and comparison families regarding new maltreatment allegations (29% vs. 32%, respectively), removals from the family home due to protection concerns occurred significantly less often for intervention children (5.6% vs. 13.0%) at one-year follow-up.¹⁶ In fact, the chances of being removed were 2.5 times greater for comparison children. Table 2 summarizes the outcomes for all three caregiver-toddler interventions.

| Intervention | Follow-up | Outcomes |
|--|-----------|--|
| Child-Parent Psychotherapy ¹⁵ | 1 year | ↑ “Secure attachment” to mother* ∟ Behaviour problems ∟ Emotional problems |
| Psycho-Educational Parenting ¹⁵ | 1 year | ∟ Secure attachment to mother ∟ Behaviour problems ∟ Emotional problems |
| Promoting First Relationships ¹⁶ | 3 months | ∟ Emotional regulation ∟ Exploratory behaviours |
| | 6 months | ↓ Negative behaviour + emotions toward caregiver ∟ Behaviour problems ∟ Social + emotional competence ∟ Ability to manage brief separation from caregiver |
| | 1 year | ↓ Removals from the home for child maltreatment ∟ Maltreatment re-allegations |
| ↑ Statistically significant gains for intervention group over comparison group. * Also statistically significant gains over Psycho-Educational Parenting. ∟ No statistically significant difference between intervention and comparison group. ↓ Statistically significant reductions for intervention group over comparison group. | | |

Helping older children

The remaining four programs focused on older children. The Dina Program, Fostering Healthy Futures, It’s My Turn Now and Multisystemic Therapy each aimed to prevent or treat mental health concerns for young people who had been maltreated.^{17–20} Nevertheless, programs varied in their specific goals and how they attempted to achieve them. Researchers studied all interventions in the United States except It’s My Turn Now, which was tested in the Netherlands.

Fostering Healthy Futures helped children in foster care to achieve residential permanency, either through reunifying them with birth parents or through adoption.

For the Dina Program, all participating five- to eight-year-olds were in foster care due to maltreatment.¹⁷ Fifty-one percent also met diagnostic criteria for a mental disorder, with attention-deficit/hyperactivity disorder being the most frequent (33%).¹⁷ The program aimed to reduce children’s physical aggression by teaching self-regulation skills, including recognizing feelings, solving problems and managing anger. Practitioners taught these skills in weekly group sessions over a total of 12 weeks in community settings. Foster parents and available birth parents participated in three group sessions aimed at helping children generalize the skills to their home environments. Comparison children received usual services offered at the agencies providing the foster placements.

All the nine- to 11-year-olds participating in the Fostering Healthy Futures RCT were in foster care due to maltreatment.²² The program aimed to increase residential stability by reducing child behaviour problems. Children participated in both a skills group and a mentoring program. In the 30-week skills group, practitioners covered a variety of topics, including recognizing feelings, solving problems and managing anger. Children also received one-to-one mentoring from a social work graduate student for 30 weeks.²² Control

children, in contrast, accessed typical interventions through social services, such as visiting with their parents as well as receiving psychotherapy.¹⁸ (Fostering Healthy Futures children could also access these services.)

Meanwhile the six- to 12-year-olds participating in It's My Turn Now had all been previously exposed to IPV.¹⁹ All were still living with at least one of their parents, and none were experiencing clinically significant mental health concerns. The program aimed to prevent mental health problems. Intervention children participated in nine weekly group sessions led by practitioners that focused on helping them “process” their IPV experiences, including teaching them to recognize their emotions and to cope with feelings and problems without using violence.¹⁹ The “non-offending” parent also participated in nine weekly group sessions to help them become more sensitive in supporting their children.¹⁹ Comparison children participated in nine weekly group sessions providing contact with a practitioner as well as social support, but without the therapeutic elements of It's My Turn Now.¹⁹

All 10- to 17-year-olds participating in Multisystemic Therapy had been physically abused, and some were experiencing mental health concerns such as posttraumatic stress and depressive symptoms.²⁰ Yet family reunification was nevertheless deemed a worthwhile goal, and nearly 95% of the children were residing in their family homes. Children's safety was protected in several ways: all families were receiving active child protection services; families where reunification was deemed inappropriate were excluded; and practitioners saw families in their homes, resulting in increased monitoring. The program aimed to improve child functioning and residential stability while decreasing rates of re-abuse. Intervention children participated with the parent who had perpetrated the abuse.

Multisystemic Therapy practitioners helped families develop a safety plan and helped parents accept responsibility for their abusive behaviour. Based on family needs, the intervention incorporated additional strategies, such as cognitive-behavioural therapy to teach anger management, problem-solving and communication skills. Meanwhile, comparison families received standard community treatments, namely therapy for children and caregivers, with reminders about upcoming appointments and funding for transportation. All parents also participated in a parenting program. Table 3 summarizes these four interventions.

It's My Turn Now led to fewer child posttraumatic stress symptoms.

| Program | Approach | Sample size | Children's ages (Country) |
|---|---|--------------------|----------------------------------|
| Dina Program ¹⁷ | Weekly child skills group delivered in community settings over 12 weeks + 3 foster/parent sessions; aimed to reduce aggression for children in foster care | 94 | 5–8 years (United States) |
| Fostering Healthy Futures ²² | Weekly child skills group + weekly individual child mentoring delivered in community settings over 9 months; aimed to reduce child behaviour problems + increase residential stability for children in foster care | 156 | 9–11 years (United States) |
| It's My Turn Now ¹⁹ | Weekly child skills group + weekly parent skills group delivered in community settings over 9 weeks; aimed to prevent mental health problems for children exposed to intimate partner violence + living with at least one parent | 164 | 6–12 years (Netherlands) |
| Multisystemic Therapy ²⁰ | Daily-to-weekly abuse- + skills-focused sessions (based on need) delivered to children + parents in homes + community settings over 8 months (on average); aimed to increase functioning + residential stability + reduce re-abuse for children living with at least one parent who had abused them | 90 | 10–17 years (United States) |

Outcomes for child and teen interventions

The Dina Program

Aimed at reducing child aggression, the Dina Program assessed three behavioural outcomes at three-month follow-up.¹⁷ There was no significant difference between intervention and comparison children regarding physical aggression according to either foster parent or teacher ratings. However, intervention children had significantly *lower* levels of self-control than comparison children at final follow-up, based on foster parent but not teacher reports. In explaining the findings, the study authors noted that nearly half of all participating children were already engaged in therapy when they entered the study. They suggested that the program was therefore offered when children were already experiencing declines in their aggression.

Fostering Healthy Futures

Aiming to increase residential stability for children living in foster care by reducing their behaviour problems, Fostering Healthy Futures assessed mental health outcomes at six-month follow-up.^{18, 22} Intervention children had significantly fewer dissociation symptoms (such as emotional numbing) than controls, with a small effect size (Cohen's $d = 0.39$),¹⁸ and fewer symptoms of emotional distress, with a moderate effect size ($d = 0.51$).

But researchers found no significant differences for posttraumatic stress symptoms, quality of life, coping skills, self-confidence, social support or psychiatric medication use. Researchers assessed residential placement outcomes — including number of placements and whether placement permanency was achieved (i.e., adoption or reunification with birth parents) — at one-year follow-up. Notably, few children placed with relatives experienced residential disruptions, and they were excluded from the primary analyses on placements.

Residing with relatives

For more information on kinship care, including its benefits for children, please see our [Summer 2014 issue](#).

The remaining intervention children who were not living with relatives experienced significantly fewer placement changes than controls (0.67 moves vs. 1.21); in fact, they had half the rate of placement changes (incidence rate ratio = 0.56).²² As well, significantly more intervention children had a permanent placement than controls (49.8% vs. 16.2%, respectively), with intervention children having 5.1 times the odds of being reunified with their birth parents or being adopted.²² As well, all Fostering Healthy Futures children (including those placed with relatives) were significantly less likely to be placed in residential treatment by one-year follow-up compared with controls (8.2% vs. 23.5%; odds ratio = 0.29).²²

It's My Turn Now

Aimed at preventing mental health problems for children exposed to IPV, It's My Turn Now assessed seven relevant outcomes at six-month follow-up.¹⁹ Intervention children had significantly fewer symptoms of posttraumatic stress than controls, based on parent but not child reports. But there were no significant differences between intervention and control children for parent- or teacher-reported behavioural or emotional problems or for children's self-reported depression symptoms.

Multisystemic Therapy

Aiming to improve children's functioning and residential stability and to reduce re-abuse by parents, Multisystemic Therapy assessed 21 relevant outcomes at four-month follow-up.²⁰ Regarding new episodes of abuse, intervention children experienced less neglect and fewer severe assaults, according to both child and parent reports, compared with controls. The degree of clinical impact was moderate for severe assault ($d = 0.54$ to 0.57), but ranged from small for parent-reported neglect ($d = 0.28$) to large for child-reported neglect ($d = 0.89$).²⁰

In contrast, psychological aggression and minor assaults by parents were significantly lower for intervention families, based on child reports but not parent reports, with small effect sizes for both ($d = 0.21$ and 0.14 , respectively). But there were no significant differences between intervention and control groups for re-abuse measured using official records, including re-abuse of the participating child as well as abuse of any child by the participating parent. Intervention children were also significantly less likely to have an out-of-home placement and had fewer placement changes than controls; however, there was no difference between the two groups in the number of days spent in out-of-home placements.²⁰

Multisystemic Therapy led to better mental health for children.

Beyond this, Multisystemic Therapy led to better mental health for children: fewer posttraumatic stress symptoms, by both parent and child report, with moderate effect sizes ($d = 0.55$ and 0.68 , respectively); less dissociation by child report, with a large effect size ($d = 0.73$); fewer emotional problems by parent report ($d = 0.71$); and fewer behaviour problems according to one of two parent report measures, with a large effect size ($d = 0.85$). However, researchers found no significant differences between intervention and control children for child depression or anxiety symptoms, anger levels or social skills. Table 4 summarizes outcomes for all four interventions delivered to children and teens.

| Intervention | Follow-up | Outcomes |
|--|------------------|--|
| Dina Program ¹⁷ | 3 months | ↓ Self-control (1 of 2 measures favoured controls) Ns Aggression (2 measures) |
| Fostering Healthy Futures ^{18, 22} | 6 months | ↓ Dissociation symptoms ↓ Emotional distress symptoms Ns Posttraumatic stress symptoms Ns Quality of life Ns Coping skills Ns Self-confidence Ns Social support Ns Psychiatric medication use |
| | 12 months | ↓ Residential placement changes** ↑ Residential placement permanency** ↓ Placement in residential treatment centres |
| It's My Turn Now ¹⁹ | 6 months | ↓ Posttraumatic stress symptoms (1 of 2 measures) Ns Emotional problems (2 measures) Ns Depression symptoms Ns Behaviour problems (2 measures) |
| Multisystemic Therapy ²⁰ | 4 months | ↓ Re-abuse (6 of 10 measures) ↓ Out-of-home placements (2 of 3 measures) ↓ Posttraumatic stress symptoms (2 of 2 measures) ↓ Dissociation symptoms ↓ Emotional problems ↓ Behaviour problems (1 of 2 measures) Ns Depression symptoms Ns Anxiety symptoms Ns Anger Ns Social skills |
| * Unless otherwise specified, there was a single measure for each outcome. ↓ Statistically significant reductions in outcome. Ns No significant difference between intervention and comparison group. ** Analyses limited to youth not living with relatives because those in kinship placements experienced few placement changes and most achieved permanency. ↑ Statistically significant gains for intervention group over comparison group. | | |

How to help in the face of maltreatment

This review — coupled with findings from our prior review on children exposed to IPV — identified six interventions with benefits for children. These findings suggest that children can be helped when maltreatment has occurred.

Two of the three toddler-caregiver programs produced gains. Promoting First Relationships reduced child apprehensions due to maltreatment and decreased toddlers' negative behaviours and negative emotions directed at caregivers. Child-Parent Psychotherapy increased toddlers' "secure attachment" to their mothers. As well, an earlier evaluation of Child-Parent Psychotherapy — delivered to three- to five-year-olds who had witnessed IPV — resulted in fewer child behaviour problems.

Among the programs aimed at helping children and teens, four showed benefit. Project Support helped young children who had been exposed to IPV, including reducing physical abuse, oppositional defiant/conduct disorder diagnoses and emotional problems. Multisystemic Therapy led to less re-abuse and fewer out-of-home placements, fewer child posttraumatic stress and dissociation symptoms, as well as reduced emotional and behavioural problems. Fostering Healthy Futures increased residential permanency and reduced placement changes and placements in residential treatment centres; it also led to fewer child dissociation symptoms and less emotional distress. Meanwhile, It's My Turn Now led to fewer child posttraumatic stress symptoms. These positive findings are summarized in Table 5.

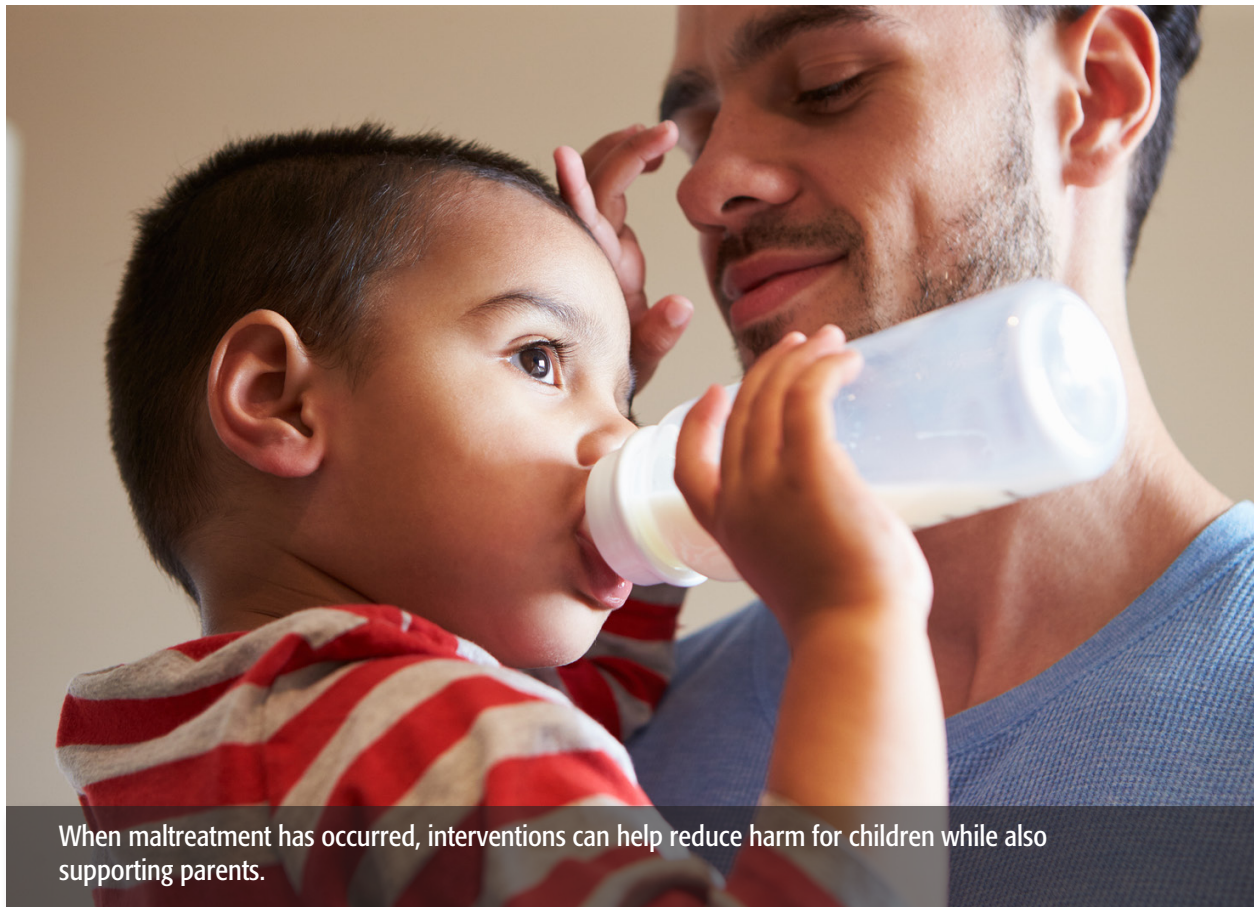
| Intervention | Duration | Focus | Child ages | Outcomes |
|--|----------|---|---------------------|---|
| Child-Parent Psychotherapy ^{10, 15} | 1 year | Any maltreatment | 1 year | ↑ "Secure attachment" to mother |
| | | IPV | 3–5 years | ↓ Behaviour problems |
| Promoting First Relationships ¹⁶ | 10 weeks | Any maltreatment | 10 months – 2 years | ↓ Removals from the home for child maltreatment ↓ Negative behaviour + emotions to caregiver |
| Project Support ^{12–13} | 8 months | IPV | 4–9 years | ↓ Physical abuse ↓ Oppositional defiant or conduct disorders ↓ Behaviour problems ↓ Emotional problems ↑ Happiness/social relationships |
| | | IPV | 4–9 years | ↓ Behaviour problems |
| Fostering Healthy Futures ^{18, 22} | 9 months | Children in foster care due to maltreatment | 9–11 years | ↓ Residential placement changes* ↑ Residential placement permanency* ↓ Placement in residential treatment centres ↓ Dissociation symptoms ↓ Emotional distress symptoms |
| It's My Turn Now ¹⁹ | 9 weeks | IPV | 6–12 years | ↓ Posttraumatic stress symptoms |
| Multisystemic Therapy ²⁰ | 8 months | Children in foster care due to physical abuse | 10–17 years | ↓ Re-abuse ↓ Out-of-home placements ↓ Posttraumatic stress symptoms ↓ Dissociation symptoms ↓ Emotional problems ↓ Behaviour problems |

↑ Statistically significant gains for intervention group over comparison group.
 IPV Exposure to intimate partner violence.
 ↓ Statistically significant reductions in outcome for intervention group over comparison group.
 * Analyses limited to youth living in non-relative foster homes because youth living in homes of relatives experienced few placement changes and most achieved permanency in their placement.

Implications for practice and policy

These studies indicate that much can be done to help children even when maltreatment has occurred. Our findings suggest four implications for practice and policy.

- **Prevent child maltreatment.** The best way to help children flourish is to support families to meet children's basic needs, including preventing maltreatment. When such efforts have not been successful, however, children must be protected from reoccurrence of maltreatment. Interventions such as Multisystemic Therapy and Project Support showed success in preventing further abuse and can play a role in keeping children safe.
- **Ensure stable and supportive environments for children.** Even in families where maltreatment has occurred, steps can be taken to help make families safer and more supportive, so children can remain in or eventually return to their homes and their communities. Promoting First Relationships reduced apprehensions from the home due to maltreatment. Similarly, Multisystemic Therapy reduced out-of-home placements. As well, Fostering Healthy Futures helped children in foster care to achieve residential permanency, either through reunifying them with birth parents or through adoption. Clearly, it is possible to ensure children's residential stability.
- **Intervene before mental health symptoms develop.** Children who have been maltreated can be supported so they do not develop emotional or behavioural problems, as shown with three interventions for asymptomatic children. Child-Parent Psychotherapy helped toddlers become "securely attached" to their mothers. Promoting First Relationships resulted in toddlers showing fewer negative behaviours and negative emotions toward their caregivers. And It's My Turn Now helped children avoid developing



When maltreatment has occurred, interventions can help reduce harm for children while also supporting parents.

symptoms of posttraumatic stress. These findings show the importance of providing effective interventions early, so children do not develop mental health concerns in addition to the other problems in their lives.

- **Intervene quickly when symptoms do develop.** Some maltreated children will develop emotional or behavioural issues. These children need to receive effective interventions as quickly as possible. We found four interventions that reduced such symptoms. Fostering Healthy Futures reduced dissociation symptoms as well as emotional distress. Child-Parent Psychotherapy reduced behaviour problems. Both Multisystemic Therapy and It's My Turn Now reduced posttraumatic stress symptoms. Multisystemic Therapy also reduced dissociation, emotional and behavioural problems. And Project Support reduced behavioural and emotional problems for children diagnosed with conduct or oppositional defiant disorders (and reduced diagnoses in some cases). Beyond this, there are effective treatments for all the mental disorders commonly experienced in childhood. These treatments should be implemented whenever these disorders are present. (Readers can use our [Subject Index](#) to find effective treatments by intervention name or mental health condition, regardless of children's maltreatment history.)

Child maltreatment constitutes a serious violation of children's rights.² Child maltreatment is also an avoidable form of adversity that puts children at risk for continuing negative mental health and life course outcomes. Prevention is therefore imperative.¹ Yet when maltreatment *has* occurred, interventions can help reduce harm for children while also supporting parents. 🙌



Even in families where maltreatment has occurred, steps can be taken to help make families safer and more supportive.

METHODS

We use systematic review methods adapted from the *Cochrane Collaboration* and *Evidence-Based Mental Health*. We build quality assessment into our inclusion criteria to ensure that we report on the best available evidence — requiring that intervention studies use randomized controlled trial (RCT) methods and also meet additional quality indicators. For this review, we searched for RCTs on interventions aimed to help children who have been maltreated. Table 6 outlines our database search strategy.

| Table 6: Search Strategy | |
|---------------------------------|---|
| Sources | <ul style="list-style-type: none">• Campbell, Cochrane, CINAHL, ERIC, Medline and PsycINFO |
| Search Terms | <ul style="list-style-type: none">• Child abuse, maltreatment, neglect, physical abuse, emotional abuse, psychological abuse, sexual abuse, abandonment, intimate partner violence, spouse abuse, domestic violence or “battered women” and treatment or intervention |
| Limits | <ul style="list-style-type: none">• Peer-reviewed articles published in English between 2008 and 2018• Pertaining to children aged 18 years or younger• Systematic review, meta-analysis or RCT methods used |

To identify additional RCTs, we also hand-searched reference lists from relevant published systematic reviews and from previous Children’s Health Policy Centre publications. Using this approach, we identified 68 studies. Two team members then independently assessed each study, applying the inclusion criteria outlined in Table 7.

| Table 7: Inclusion Criteria for RCTs |
|---|
| <ul style="list-style-type: none">• Participants were randomly assigned to intervention and control groups (i.e., no intervention or treatment-as-usual)• Studies provided clear descriptions of participant characteristics, settings and interventions• Interventions aimed to help children who had experienced maltreatment (of any type)• Interventions were evaluated in settings that were applicable to Canadian policy and practice• At study outset, more than 50% of included children had been maltreated by a parent/caregiver• Follow-up was three months or more (from the end of the intervention)• Attrition rates were 20% or less at follow-up and/or intention-to-treat analysis was used• Child mental health indicators were assessed at follow-up using two or more informant sources (e.g., child, parent, practitioner)• At least one outcome rater was blinded to participants’ group assignment• Studies documented reliability and validity of all primary outcome measures or instruments• Levels of statistical significance were reported for primary outcome measures• Studies were excluded when authors indicated a lack of statistical power or lack of appropriate statistical analyses for assessing primary outcomes |

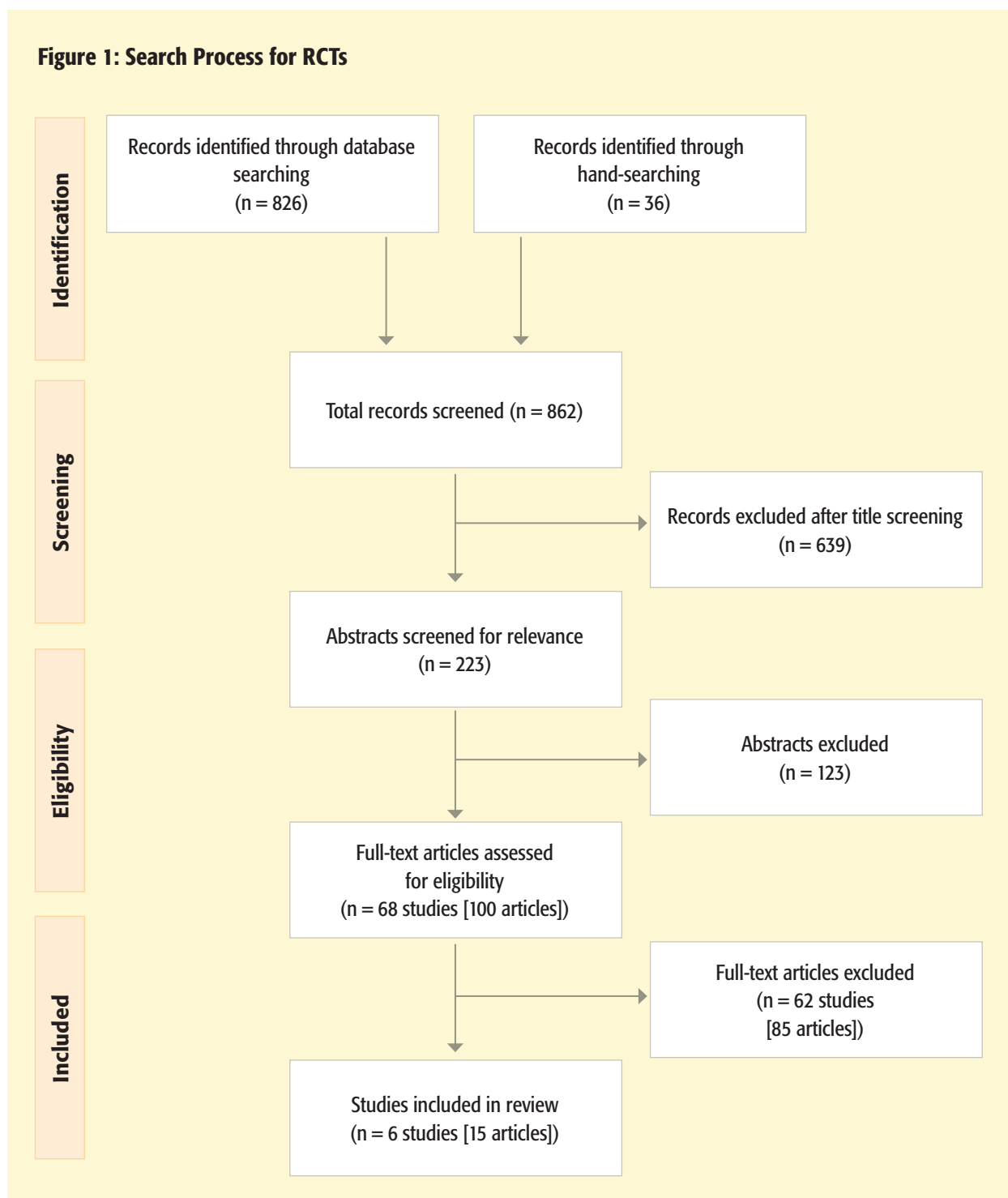
Seven RCTs met all the inclusion criteria. Since one of the RCTs^{12, 14} had been featured in our Fall 2012 issue, we only detailed findings of the six new RCTs. Figure 1, adapted from PRISMA, depicts our search process. Data from these studies were then extracted, summarized and verified by two or more team members. Throughout our process, any differences between team members were resolved by consensus. 🙌

For more information on our research methods, please contact

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Figure 1: Search Process for RCTs

To best help children, practitioners and policy-makers need good evidence on whether or not a given intervention works. **Randomized controlled trials** (RCTs) are the gold standard for assessing whether an intervention is effective. In RCTs, children are randomly assigned to the intervention group or to a comparison or control group. By randomizing participants — that is, giving every child an equal likelihood of being assigned to a given group — researchers can help ensure the only difference between the groups is the intervention. This process provides confidence that benefits are due to the intervention rather than to chance or other factors.

Then, to determine whether the intervention actually provides benefits to children, researchers analyze key outcomes. If an outcome is found to be **statistically significant**, it helps provide certainty the intervention was effective rather than it appearing that way due to a random error. In the studies that we review, researchers set a value enabling at least 95% confidence that the observed results are real.

Once an intervention has been found to have a statistically significant benefit, it is helpful to quantify the degree of difference it made, or its **effect size**. Beyond identifying that the intervention works, an effect size indicates how much of a clinically meaningful difference the intervention made in children's lives. The effect size measures reported in this issue are described below.

Cohen's d is a commonly used measure of effect size. Values can range from 0 to 2. Standard interpretations are 0.2 = small effect; 0.5 = medium effect; 0.8 = large effect.

Odds ratio is another frequently used measure of effect size. It indicates how many times greater or lesser the chances are of a given outcome occurring. For example, an odds ratio of 2.0 indicates that parents in the control group had twice the odds of maltreating their child compared to parents who received the intervention.

Incidence rate ratio indicates how many times more likely the intervention children were to have a given outcome. For example, an incidence rate ratio of 0.5 means that intervention children had half the rate of re-abuse compared to control children.

Cramer's V differs from the other effect size measures in that it does not take into account other variables that could impact on the outcome of interest. For example, in calculating the strength of the effect of Child-Parent Psychotherapy on children's secure attachment, researchers did not consider variables such as socio-economic status and baseline rates. Interpretation values for Cramer's V vary depending on the number of possible outcomes for the outcome of interest. The interpretations for the specific study cited in our review are 0.1 = small effect; 0.3 = medium effect; 0.5 = large effect. 🙌

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BC government staff can access original articles from [BC's Health and Human Services Library](#). Articles marked with an asterisk (*) include randomized controlled trial data that was featured in our Review article.

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LINKS TO PAST ISSUES

The *Children's Mental Health Research Quarterly* [Subject Index](#) provides a detailed listing of topics covered in past issues, including links to information on specific programs.

2018 / Volume 12

- 3 – [Preventing child maltreatment](#)
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- 1 – [Preventing youth substance misuse: Programs that work in schools](#)

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- 4 – [Promoting positive behaviour in children](#)
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- 1 – [Prevention of mental disorders](#)