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Helping Children Overcome Trauma



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Next Issue

Examining early childhood interventions

Early child development programs have been shown to improve children's cognitive development and school success. But can they also promote emotional and social well-being? In the Fall 2011 issue, we examine the mental health outcomes associated with early child development programs.



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Updating the rule book



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Cannabis: Does it help or harm?

WELCOMING NURSE-FAMILY PARTNERSHIP

The CHPC will be conducting a scientific evaluation of the first Nurse-Family Partnership program to be launched province-wide in Canada. [Please see our video.](#)

About the Children's Health Policy Centre

As an interdisciplinary research group in the [Faculty of Health Sciences](#) at [Simon Fraser University](#), we aim to connect research and policy to improve children's social and emotional well-being, or *children's mental health*. We advocate the following public health strategy for children's mental health: addressing the determinants of health; preventing disorders in children at risk; promoting effective treatments for children with disorders; and monitoring outcomes for all children. To learn more about our work, please see www.childhealthpolicy.sfu.ca



**Children's
Health Policy
Centre**

VOL. 5, NO. 3 2011

About the Quarterly

In the *Quarterly*, we present summaries of the best available research evidence on children's mental health interventions, using systematic review methods adapted from the [Cochrane Collaboration](#).

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We hope you enjoy this issue. We welcome your letters and suggestions for future topics. Please email them to chpc_quarterly@sfu.ca or write to the Children's Health Policy Centre, Attn: Jen Barican, Faculty of Health Sciences, Simon Fraser University, Room 2435, 515 West Hastings St., Vancouver, British Columbia V6B 5K3 Telephone (778) 782-7772



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THINKING OF THE WORLD

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Far too many children suffer emotional and behavioural consequences following exposure to preventable traumas. We discuss factors that lead to some children being particularly burdened and possible actions to stop their exposure and prevent their pain.

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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:

Schwartz, C., Waddell, C., Barican, J., Garland, O., Gray-Grant, D., & Nightingale, L. (2011). Helping children overcome trauma. *Children's Mental Health Research Quarterly*, 5(3), 1–16. Vancouver, BC: Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University.

Avoiding preventable problems

The UN Convention on the Rights of the Child, ratified by Canada, establishes the right of all children to be protected “from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation” (Article 19.1).

A trauma is a physical or psychological threat or assault to a child’s sense of self, safety or survival or to the safety of another person significant to the child.¹ Regrettably, traumatic events such as abuse, neglect, serious illness, natural disaster and war affect the lives of many children. In a landmark community-based survey that tracked 1,500 American children over eight years, researchers found that more than two-thirds experienced such traumas either directly or indirectly.² Strikingly, more than one in three children were exposed to multiple traumas, many of which were avoidable, such as physical abuse (see Table 1).²



Children’s responses vary depending on the type of trauma they experience, their life circumstances and their individual strengths.

Table 1: Trauma exposure in a community sample of American children²

Type of trauma	Children affected
Non-sexual violence including physical abuse, violent death of a loved one or war	25%
Sexual assault	11%
Other injuries including physical illness, serious accidents and disasters	33%
Witnessing violence	24%
Exposure to multiple traumas	37%

Canadian children also have high rates of trauma exposure. Among the nearly 10,000 Canadians who participated in a survey documenting past maltreatment experiences, 21% of females and 31% of males had been physically abused, and 13% of females and 4% of males had been sexually abused.³ As well, a 2008 national survey found 85,440 cases of children being physically abused, sexually abused, neglected, emotionally maltreated or exposed to intimate partner violence.⁴ This means that based on substantiated child welfare investigations, 1.4% of Canadian children experienced significant maltreatment.⁴

Who is more likely to be exposed to traumatic events? Researchers have found an unequal burden, with children living in disadvantaged circumstances experiencing significantly more trauma than those who are more advantaged.⁵ For example, living in poverty or living with a parent who has a mental illness or a criminal record can *quadruple* a child’s risk of being exposed to trauma.⁵ These data suggest that much more needs to be done to protect vulnerable children, particularly those who are doubly disadvantaged by first experiencing significant adversity, then experiencing added trauma. These children clearly suffer from unacceptable levels of compounding — and often preventable — hardship.

The consequences of trauma

When trauma has occurred, what are the consequences for children? Researchers have investigated this question by studying children's reactions following exposure to traumatic events. One population-based survey of nearly 4,000 adolescents found that exposure to violence — including sexual assaults, attacks with weapons and injuries inflicted by caregivers — significantly increased the risk of developing posttraumatic stress disorder (PTSD), depression and substance use disorders.⁶ Notably, nearly 75% of the youth who developed PTSD also developed concurrent depression or substance use disorders, suggesting a heavy burden of distress and impairment associated with exposure to violence.⁶

The previously cited community-based survey of 1,500 children also identified significant mental health consequences associated with trauma. Nearly twice as many mental disorders were found in children exposed to a trauma compared to children not exposed to any.² In particular, traumatized children were significantly more likely to be diagnosed with a mood, anxiety or behaviour disorder.² As well, children facing multiple traumas were found to experience significantly more impairments, including relationship, school and physical health difficulties.²

Children may also develop emotional and behavioural symptoms after experiencing a trauma without meeting diagnostic criteria for a mental disorder. These symptoms can include nightmares, repetitive play about the trauma, anger outbursts, self-injurious behaviour and sexualized behaviour.⁷ Emerging research evidence also suggests that children exposed to maltreatment, including intimate partner violence, may be at risk for compromised brain development.⁷

Children's responses vary

Perhaps surprisingly, many children cope well following a trauma. In fact, most children display resiliency,⁸ never developing serious conditions such as PTSD.^{2, 6} (Please see our previous issue [Building Children's Resilience](#) for additional information on resiliency, available at www.childhealthpolicy.sfu.ca/research_quarterly_08/index.html.)

Children's responses vary depending on the type of trauma they experience, their life circumstances and their individual strengths. For example, a single brief event, such as a minor assault by a stranger, is experienced entirely differently than a sustained and severe event, such as abuse by a trusted caregiver. Children who experience the former kind of event are quite likely to cope well, particularly if they are in a protective environment. In contrast, children who experience the latter, more insidious

“Once the trauma has stopped and the child's safety has been ensured, parents' and caregivers' responses can make a great difference to how a child copes.”

trauma involving sustained maltreatment typically experience poorer outcomes. In part, this is because these children often lack appropriate adult supports and a protective environment.

The impact on children's development is even greater when they experience further adversities in addition to trauma. Specifically, children are significantly more likely to develop a mental disorder after a trauma if their parent has a mental disorder,^{6,7} if their family environment is dysfunctional,⁹ or if the family is socio-economically disadvantaged.²

What can parents and other caregivers do?

Once the trauma has stopped and the child's safety has been ensured, parents' and caregivers' responses can make a great difference to how a child copes.¹⁰ In particular, children adjust more quickly when parents or caregivers provide strong supports and maintain good family functioning.^{7,11} Those caring for children can help in a number of ways:

- Avoid being overprotective
- Provide reassurance
- Be supportive when children discuss their experiences
- Correct misunderstandings, such as children blaming themselves
- Encourage children to engage in positive and relaxing activities^{8,9}

For the majority of children who do not experience severe and sustained trauma, these kinds of caring and supportive responses are often sufficient to ensure full recovery without further intervention.⁸ However, if a child experiences ongoing problems after a trauma, an evaluation by a qualified professional is warranted. For children who do need more assistance, some treatments may be more effective than others. In the Review article that follows, we evaluate the research evidence for a variety of trauma interventions. 🖐

Facts without fears

Most Canadian children do not directly experience such devastating events as armed conflict or natural disasters. Yet it can still be distressing for children to learn about them. Parents can also struggle with how to share difficult news without causing undue distress for their children. How *can* children learn about concerning world events such as wars and earthquakes?

A website developed by two Toronto elementary-school teachers may go some way to addressing this question. Jonathan Ophek, Kathleen Tilly and Joyce Grant created a current affairs website — Teachkidsnews.com — geared to students in Grades 2 through 6.¹² The website provides child-friendly information while encouraging community engagement and critical thinking. For example, a posting about flooding on the Canadian prairies told of specific actions young people were taking to help their communities. It also encouraged readers to learn from their peers' experiences. Besides providing information for children, the website also provides resources for parents and teachers.

Building resilience

After — and only after — children’s safety is ensured, practitioners may begin to treat the behavioural and emotional symptoms that may stem from trauma. But what are the most effective approaches for helping children? To answer this question, Silverman and colleagues¹³ conducted a systematic review of “psychosocial treatments” for children exposed to various traumas. (Please see the [Appendix](#) for a description of our methods for identifying and appraising this review.)

Silverman’s group conducted an extensive search for psychotherapies for trauma-exposed children and identified 21 randomized controlled trials (RCTs) that met their inclusion criteria. All 21 RCTs included multiple informants (parents, children and/or teachers) regarding child outcome measures, detailed (manualized) treatment protocols, and clear descriptions of statistical analyses.

Participating children ranged from preschoolers to adolescents, from diverse ethnic groups. Notably, although neglect and emotional abuse are the most common traumas that children experience,¹⁴ most of the studies examined in this review focused on sexual abuse (please see the sidebar).

To compare outcomes across studies, the review authors first classified the different psychotherapies used. Cognitive-behavioural therapy (CBT) was the most frequently studied, evaluated in 12 RCTs. Although the approaches varied somewhat, CBT generally began with educating children (and, in some cases, parents) about traumatic events and typical reactions to them.⁸ CBT also typically entailed teaching children a variety of coping strategies, including the following:

- Relaxation techniques — practising focused breathing and progressive muscle relaxation
- Cognitive restructuring — challenging unhelpful thoughts such as self-blaming
- Exposure techniques — helping children practise facing feared situations⁸

In 10 of the 12 CBT evaluations, children who received CBT showed statistically significant improvements over children who received the comparison conditions on at least one outcome (see Table 2). The reported improvements were diverse, including reduced depressive, behaviour and posttraumatic stress symptoms (the most common outcome).



Prevention of avoidable trauma for children is a collective ethical imperative.

Types of trauma ¹³	Studies
Sexual abuse	11
Physical abuse	3
Exposure to community violence	3
Exposure to intimate-partner violence	1
Hurricane	1
Motor vehicle accident	1
Any single trauma (e.g., car accident)	1

Table 2: Study information and outcomes for cognitive-behavioural therapy (CBT)

Trauma experienced	Age (years)	Sessions	Delivery format	Parents included	Statistically significant outcomes*
Sexual abuse	3 – 6	12	Individual	Yes	↓ Inappropriate sexual behaviours, other behaviour & emotional symptoms
Sexual abuse	5 – 17	20	Individual	Yes**	↓ Posttraumatic stress symptoms
Sexual abuse	7 – 13	12	Individual	Yes**	↓ Posttraumatic stress symptoms
Sexual abuse	7 – 15	12	Individual	Yes	↓ Depressive symptoms ↑ Social competence
Sexual abuse	8 – 14	12	Individual	Yes	↓ Posttraumatic stress, behaviour, depressive & other emotional symptoms
Sexual abuse	8 – 15	12	Individual	Yes	↓ Anxiety & depressive symptoms
Physical abuse	6 – 13	12	Individual	Yes	↓ Behaviour symptoms ↑ Overall functioning
Community violence	6 – 14	8	Group	No	↓ Posttraumatic stress & depressive symptoms
Community violence	10 – 11	10	Group	No	↓ Posttraumatic stress & depressive symptoms ↑ Social functioning
Single event†	8 – 18	10	Individual	Yes	↓ Posttraumatic stress, other anxiety & depressive symptoms

* In which CBT showed significantly greater benefits over comparison conditions.
 ** In some, but not all, CBT conditions.
 † Included motor vehicle accidents, assaults or exposure to violence.

Besides CBT, the review included a number of other psychotherapies. Silverman and colleagues found four that showed evidence of some benefits:

- Eye movement desensitization and reprocessing — imagining the traumatic event while visually tracking the therapist’s hand movements
- Resilient-peer treatment — engaging with peers skilled in social interactions
- Cognitive-processing therapy — using cognitive strategies to address the thoughts and feelings that occurred during the trauma
- Child-parent psychotherapy — improving parents’ caregiving skills and understanding of their child’s development and functioning

Please see Table 3 for details on the findings for these four psychotherapies.

After carefully examining the methodology and outcomes of the remaining studies, the authors concluded that the other psychotherapies should be regarded as “experimental” until there is further research. These psychotherapies (for which detailed descriptions were not provided) were supportive group therapy, standard group therapy (with and without stress inoculation training), individual or group therapy with caregiver support, psychological debriefing, and a program focused on recovering from abuse.

For practitioners who want to learn more

For those interested in learning more about trauma-focused cognitive-behavioural therapy for children, the Medical University of South Carolina has a free [Web-based](http://tfcbt.musc.edu) course available at tfcbt.musc.edu. The 10-module course (developed by Drs. Cohen, Deblinger and Mannarino) provides detailed information about specific techniques, including video examples. The website also gives helpful advice on overcoming common clinical challenges and addressing developmental considerations, such as working with very young children.

Table 3: Study information and outcomes for trauma therapies other than CBT

Trauma experienced	Age (years)	Sessions	Delivery format	Parents included	Statistically significant outcomes*
Eye movement desensitization and reprocessing					
Sexual abuse	12 – 13	12	Individual	No	↓ Posttraumatic stress symptoms
Hurricane	6 – 12	4	Individual	No	↓ Posttraumatic stress, other anxiety & depressive symptoms
Resilient-peer treatment					
Maltreatment	3 – 5	15	Group	No	↓ Behaviour & emotional symptoms
Maltreatment	3 – 5	15	Group	No	↓ Behaviour & emotional symptoms ↑ Play skills
Cognitive-processing therapy					
NR	15 – 18	12	Individual	No	↓ Posttraumatic stress & depressive symptoms
Child-parent psychotherapy					
Intimate-partner violence	3 – 15	50	Individual	Yes**	↓ Posttraumatic stress & behaviour symptoms

NR Not reported
 * In which therapy showed significantly greater benefits over comparison conditions.
 ** All parent participants were mothers.

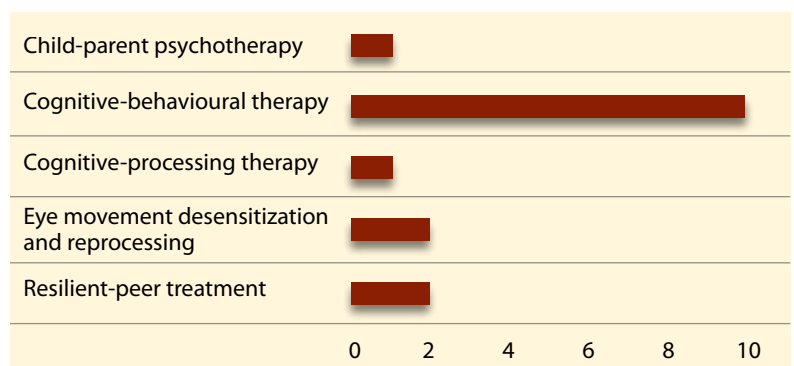
Cognitive-behavioural therapy most effective

Is CBT the most effective psychotherapy for traumatized children? When parents participate in psychotherapy, are children’s outcomes better? Which traumas respond best to psychotherapy? To answer these questions, Silverman and her colleagues combined data from all 21 RCTs and performed a series of meta-analyses. (In a meta-analysis, statistical outcomes from related individual studies are combined to provide a more powerful estimate of the effect size [d] of an intervention.)

They found only two statistically significant modifiers of children’s outcomes: 1) type of psychotherapy; and 2) type of trauma exposure. CBT produced significantly greater reductions in children’s posttraumatic stress symptoms than non-CBT psychotherapies, with an impressive effect size ($d = .50$ compared to $d = .19$). As well, children who had been sexually abused showed significantly greater reductions in posttraumatic stress symptoms ($d = .46$) compared to children who had experienced other kinds of traumas ($d = .38$).

Because the review had only 21 RCTs to combine in the meta-analyses, and because 11 of these studies focused on sexual abuse, the likelihood of being able to detect positive or negative effects for a range of traumas was

Number of studies supporting specific psychotherapies



limited. As well, the meta-analyses examined only four outcomes: children's posttraumatic stress, depressive, anxiety and behaviour symptoms. Because other important outcomes were not measured, this meant there could be undetected benefits (e.g., having parents involved in their child's treatment may have improved parenting skills).

Implications for policy and practice

Strikingly, 20 of the 21 RCTs included in this review addressed preventable traumas, such as exposure to sexual abuse, physical abuse, community violence and intimate-partner violence. These traumas have multiple complex causes that will not be easily eradicated. However, prevention where possible must still be the priority. Encouragingly, there are prevention interventions that can make a difference. For example, Nurse-Family Partnership (NFP) is a prevention program with strong potential to stop child maltreatment before it starts, while also helping disadvantaged parents (see our [previous issue](#) on NFP for more information on this intervention).

While prevention of avoidable trauma for children is a collective ethical imperative, effective treatments will still be needed. According to this review, CBT is the most effective psychotherapy for traumatized children, particularly for sexual abuse. CBT has the added benefit of being useful for children across the age range from toddlers through adolescents. Therefore, this review shows that certain psychotherapies can reduce children's distress following trauma — making recovery both possible and probable. 🙌

What about medications?

Although Silverman and colleagues specifically excluded pharmaceutical treatments from their review, the use of medication among youth with posttraumatic stress disorder (PTSD) has recently been evaluated. The medication sertraline (a selective serotonin reuptake inhibitor) was no better than a placebo in improving PTSD symptoms among 131 children and adolescents.¹⁵ In contrast, the SSRI fluoxetine does have evidence of effectiveness in treating children and adolescents with severe anxiety and depression, although not specifically tested among traumatized youth (as documented in a previous issue of the *Quarterly* and in a past [research report](#)). Overall, the evidence suggests that effective psychotherapies should be the first line of treatment for children experiencing mental health problems after a trauma.

Updating the rule book

As a child and adolescent psychiatrist with more than 25 years of experience, Peggy Firstbrook had seen plenty of children and youth with trauma in their backgrounds. But when she started working at Ledger House (at the Queen Alexandra Centre for Children’s Health) in Victoria, BC, she and the team realized that most of the patients admitted to the 14-bed psychiatric facility had been traumatized.

According to Firstbrook, trauma covers a fairly broad spectrum, ranging from neglect to multiple separations from caregivers to witnessing violence, as well as the forms of abuse that practitioners tend to be more aware of, such as sexual assault or abuse and serious accidents.

“Many of the children and adolescents we were seeing were raised early on in chronic traumatic environments, and sometimes they were still in these environments when we admitted them,” she says. “That’s really the issue as a society that we need to address.”

As part of Ledger House’s efforts to tackle the problem, the facility decided to adopt an approach centre on “trauma-informed care.” This label does not refer to specific treatment interventions; instead, it means recognizing the pervasiveness of trauma, meeting children’s needs without re-traumatizing them, and working to understand the connection between symptoms, behaviours and brain development.

“We changed everyone’s thinking [at Ledger House] and we threw out the rule book,” Firstbrook says. Instead, the group focused on safety and child-identified goals. “We did away with the so-called privilege system,” Firstbrook recalls. “In its place, we put a big emphasis on safety — having the children and youth *be safe, feel safe*.”

The new practice tries to eliminate “power” struggles by focusing on what is causing the difficulty. “It’s really about trying to get at what is *underneath* the child’s behaviour, which is probably fear and feeling out of control,” Firstbrook says. “The children and youth on the units don’t get to do whatever they want when they want, and we certainly do set limits. But there’s a lot of discussion, negotiation. A ton of effort goes into meeting them where they’re at. For the vast majority, it works really well.”

One of the major challenges at Ledger House was working with staff to help them become more negotiation minded. “Sometimes we do have to say no, but we want to make sure it’s not the first thing we say,” according to Firstbrook.



■ We put a big emphasis on safety — having the children and youth *be safe, feel safe*.

— Peggy Firstbrook, Psychiatrist

“Many of the children and adolescents we were seeing were raised early on in chronic traumatic environments.”

Staff found adapting to a trauma-informed care approach particularly challenging when dealing with younger children. “It was hard to figure out how to set a limit without being coercive,” Firstbrook says. “It’s really kind of fascinating in that it parallels what’s happening in society [with parenting].”

The good news is that “throwing out the rule book” at Ledger House has resulted in large, measurable improvements. “Time outs” have almost vanished. “They virtually never happen anymore,” Firstbrook says. As well, rates of seclusion and restraint have plummeted.

Firstbrook finished her contract at Ledger House at the end of March, after eight years, and is now doing psychiatric outreach work. But the experience has changed her own approach to practice. “I’ve become so much more sensitized to what trauma is for children and youth in their development,” she says. “I have a framework and some understanding of early trauma on brain development and what that looks like. I’m much more comfortable talking about trauma in my reports and records.”

Firstbrook believes that by working at the community level she is better able to help *prevent* trauma, identify it where it has occurred, and advocate for the least restrictive and intrusive care, for example, by preventing admission to hospital units if possible. “In order to understand individuals, their families and their service needs, I think practitioners really need to understand trauma,” she says. 🖐️

“In order to understand individuals, their families and their service needs, I think practitioners really need to understand trauma.”

Cannabis: Does it help or harm?

To the Editors:

Is there any scientific evidence supporting the use of cannabis, therapeutically, to help teens with mental health problems?

Catherine Carr
Victoria, BC



A literature search (using the terms *cannabis* and *mental health*) failed to uncover any systematic reviews or randomized controlled trials on using cannabis to treat adolescents with mental health problems. The most relevant study we found was a longitudinal investigation of cannabis use and mental health outcomes in youth in New Zealand.¹⁶ While the study did not examine the therapeutic use of cannabis, it did clarify the relationship between cannabis use and the development of certain mental disorders.

The study found no relationship between cannabis use and depression or anxiety disorders. However, having conduct disorder at age 15 was a significant risk factor for using cannabis at age 18, which in turn was associated with cannabis dependence at age 21. These findings suggest that some young people may use cannabis in an attempt to ease emotional distress, after behavioural problems have developed. But this study also clearly identified that this pattern of use comes at a cost, in that many of these young people became dependent on cannabis.

In addition to its potential for abuse and dependence, cannabis has many other well-documented harmful effects, including impairing cognitive, cardiovascular and immune functioning.¹⁷ As well, the risk of developing schizophrenia has been found to be 2 to 25 times higher in individuals who used cannabis compared to individuals who did not.¹⁸ Given the potential for harm, cannabis cannot be recommended as a treatment for teens with mental health problems. Instead, teens with these problems should be offered interventions with established effectiveness. 🖐️

In addition to its potential for abuse and dependence, cannabis has many other well-documented harmful effects, including impairing cognitive, cardiovascular and immune functioning.

We welcome your questions

If you have a question relating to children's mental health, please email it to chpc_quarterly@sfu.ca or write to the Children's Health Policy Centre, Attn: Jen Barican, Faculty of Health Sciences, Simon Fraser University, Room 2435, 515 West Hastings St., Vancouver, BC V6B 5K3.

Research methods

We used systematic methods adapted from the [Cochrane Collaboration](#)¹⁹ to identify systematic reviews published in peer-reviewed scientific journals, applying the following search strategy:

Sources	Cochrane Database of Systematic Reviews, Campbell Collaboration Library, Medline and PsycINFO
Search Terms	Posttraumatic stress, stress disorders, post-traumatic or posttraumatic stress disorders, and prevention or intervention
Limits	<ul style="list-style-type: none"> • English-language articles • Child participants (ages 0–18 years) • Systematic reviews or meta-analyses

Using this approach, six reviews were identified and retrieved. We then applied the following inclusion criteria in assessing the reviews:

For the review articles

- Clear descriptions of methods, inclusion and exclusion criteria, sources (including database names) and search years
- Clear assessment of methodological quality of the individual studies

For the individual studies reported within review articles

- Interventions specifically aimed at addressing childhood traumas
- Random assignment of participants to intervention and control/comparison groups at study outset
- Outcomes assessed included mental health variables (such as symptoms of anxiety, depression or behavioural problems)
- Levels of statistical significance reported for primary outcomes

One team member assessed each retrieved review. A short list was prepared of the best reviews for assessment by a second team member. Team members then reached consensus on selecting the final review. One review (only) met the inclusion criteria. Data were then extracted and summarized by the team. 🖐️

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BC government staff can access original articles from [BC's Health and Human Services Library](http://www.health.gov.bc.ca/library/) (www.health.gov.bc.ca/library/).

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- 4 - [Addressing Attention Problems in Children](#)
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- 2 - [Children's Behavioural Wellbeing](#)
- 1 - [Prevention of Mental Disorders](#)