



**RESEARCH BRIEF:
Interventions to Prevent Child Maltreatment**

March 2014

What We Know

- Child maltreatment (CM) is defined as the physical and emotional mistreatment, sexual abuse, neglect and negligent treatment of children, as well as their commercial or other exploitation (WHO, 2006). It is a major public health problem associated with a broad range of negative health outcomes across the lifespan. There are five types of CM: physical abuse, sexual abuse, emotional (or psychological) abuse, exposure to intimate partner violence (IPV), and neglect (Gilbert et al., 2009). There are no universally accepted definitions for any types of maltreatment. Most information about CM is based on studies conducted in high-income countries.

Incidence and prevalence

- Official statistics seriously underestimate the occurrence of CM; self-reports are considered more accurate, but are still likely low. In Canada, the Canadian Incidence Study of Reported Child Abuse and Neglect (CIS) has provided information about the estimated number of maltreatment-related investigations every 5 years since 1998. Findings from the most recent cycle (2008) indicate that the incidence was 39.16 per 1,000 children; the incidence for substantiated maltreatment was 14.19 per 1,000 children (Public Health Agency of Canada, 2010). The primary categories of substantiated maltreatment based on CIS-2008 data were as follows: physical abuse (20%), sexual abuse (3%), neglect (34%), emotional maltreatment (9%) and exposure to IPV (34%).
- Recent meta-analyses indicate self-reported prevalence estimates of CM: physical abuse (22.6%; no gender differences) (Stoltenborgh et al., 2013b), neglect (physical: 16.3% and emotional: 18.4%; no gender differences) (Stoltenborgh et al., 2013a); sexual abuse (18.0% (girls) and 7.6% (boys) (Stoltenborgh et al., 2011) and emotional abuse (36.3%; no gender differences) (Stoltenborgh et al., 2012).

Risk indicators

- Risk indicators show an association with CM, but are not necessarily causally related. Much more is known about risk indicators for physical and sexual abuse; risk indicators for neglect and exposure to IPV are similar to those for physical abuse (WHO, 2006). Less is known about risk indicators for emotional abuse (Hibbard et al., 2012).

Physical abuse

- Poverty
- Unemployment
- Parental exposure to child maltreatment
- Parental mental health problems
- Parental substance abuse
- IPV

Sexual abuse

- Female gender
- Living in family without natural parent
- Poor relationships between parents
- Presence of a stepfather
- Poor child-parent relations
- Young maternal age
- Parental death

Effects of child maltreatment

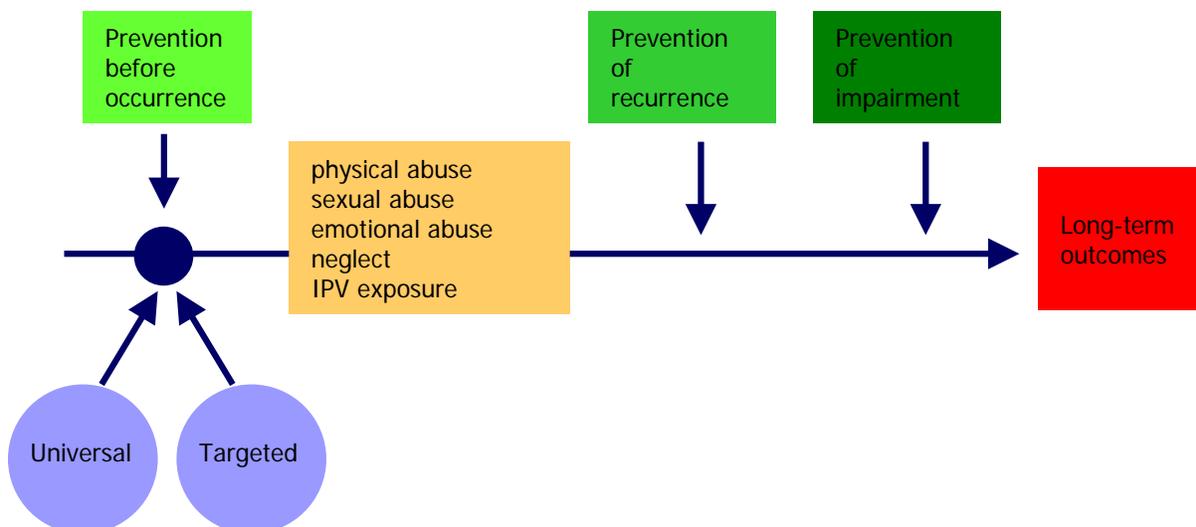
- Child maltreatment may not be directly causal, but it has been associated with the following types of impairment (Andrews et al., 2004; Miller et al., 2011; McCrory et al, 2012; Norman et al., 2012; Naughton et al., 2013):

Injury	Anxiety disorders and PTSD	Conduct disorder	Personality disorders
Affect regulation	Mood disorders	Alcohol abuse	Relationship problems
Attachment	Disruptive behaviour disorders (e.g. ADHD)	Drug abuse	Maltreatment of one's own offspring
Growth delay	Academic failure	Other risk-taking behaviours	Chronic disease including heart disease, cancer
Developmental delay	Poor peer relations	Recurrent victimization	
Neurobiological impairment			
Infancy	Childhood	Adolescence	Adulthood

- Neuroendocrine studies and brain imaging research shows evidence of an association between CM and atypical development of the hypothalamic-pituitary-adrenal (HPA) axis response to stress and structural differences in the brain (McCrory et al, 2012).

Prevention Framework (MacMillan et al., 2009)

- It is important to consider interventions aimed at reducing CM and related impairment across the spectrum: before it occurs, recurrence, and associated impairment, including long-term outcomes. The majority of studies examining the effectiveness of interventions aimed at reducing CM and its impacts have been conducted in high-income countries: 99% of the published studies as of 2009 (Mikton & Butchart, 2009). A recent systematic review (SR) of parenting intervention studies conducted in low- and middle-income countries (LMICs) showed that it is possible to conduct RCTs that include CM-related outcomes in LMICs (SR) (Knerr et al., 2011).



Types of evidence: in the following sections, we include evidence of intervention effectiveness obtained through high-quality studies of appropriate design, primarily randomized controlled trials (RCTs), Systematic Reviews (SR) or Meta-Analyses (MA), which synthesize multiple studies that meet quality criteria, and provide the best level of evidence.

Preventing child maltreatment before it happens

Physical abuse and neglect

- Home visiting programs are not uniformly effective in reducing child physical abuse and neglect (MacMillan et al., 2009; Selph et al., 2013).
 - The Nurse-Family Partnership, a program of nurse home visits to first-time, disadvantaged mothers, is effective in reducing child physical abuse and neglect, as measured by official child protection reports, and related outcomes like injuries in two randomized controlled trials (RCTs) (Olds et al., 1986, Kitzman et al., 1997, Olds et al., 1997; Olds et al., 2007; Zielinski et al., 2009).
 - Early Start, a program of home visits provided by nurses or social workers to at-risk families reduced associated outcomes such as injuries and hospital admissions for child abuse and neglect, but did not lead to differences in rates of child protection reports (RCT) (Fergusson et al., 2005; 2013).
 - The Child First (Child and Family Interagency, Resource, Support, and Training) Program, a home-based, psychotherapeutic, parent-child intervention provided to multi-risk mothers and children showed less involvement in protective services (RCT) (Lowell et al., 2011).
 - Para-professional home visitation (including the Hawaii Healthy Start Program and Healthy Families America) have not been shown effective in reducing official reports of physical abuse and neglect; RCTs have shown conflicting evidence regarding child abuse reported by mothers (Olds et al., 2007; Guterman et al., 2013; Avellar & Supplee, 2013).
- The Triple P Parenting Program (RCT) showed positive effects on child protection reports, out-of-home placements, and hospital and emergency reports of injuries; however, rates of maltreatment rose in both groups. This program needs further study (Prinz et al., 2009).
- One study (historical cohort) suggests that hospital-based educational programs can reduce abusive head injuries (abusive head trauma; previously called shaken baby syndrome) (Dias et al., 2005). Further evaluations of this program, as well as of a second public health educational program that has shown mixed results across three RCTs in proxy behavioural outcomes considered important for preventing abusive head trauma are currently underway (Barr et al., 2009a; 2009b; Fujiwara et al., 2012).
- One RCT showed promise for the effectiveness of Enhanced Pediatric Care, where physicians identify and help families to decrease risk factors for CM (Dubowitz et al., 2009; Selph et al., 2013). A second RCT in a sample of lower risk families had less promising results (Dubowitz et al., 2012).

Sexual abuse, psychological abuse and exposure to IPV

- Whether educational programs reduce occurrence of child sexual abuse is unknown. There is evidence that they improve children's knowledge and a few studies have shown increases in protective behaviours (SR) (Zwi et al., 2007). Although not measured in most, some studies reported negative outcomes.
- There is no evidence to indicate if interventions can prevent sexual abuse of children by adults considering at high risk of offending (SR) (Långstrom et al., 2013).
- Attachment-based interventions might improve insensitive parenting and infant attachment insecurity (SR) (Bakermans-Kranenburg et al., 2003), but there is no direct evidence that these interventions prevent emotional abuse.
- There is no evidence for existing programs that prevent the occurrence of IPV against women, and by extension, children, although there is emerging evidence that specific types of counseling can reduce women's experiences of IPV, which may prevent children's exposure (Wathen & MacMillan, 2014).



Preventing re-exposure and impairment

Physical abuse and neglect

- There is limited evidence to support the use of most parent training programs to reduce the recurrence of physical abuse (SR) (Barlow et al., 2006), other than PCIT and SafeCare (see below).
- Parent-child interaction therapy (PCIT) reduced recidivism of physical abuse, but not neglect in one laboratory study (RCT) (Chaffin et al., 2004); a second trial in a field agency showed a trend toward reduction of subsequent child welfare reports (Chaffin et al., 2011). Combining PCIT with a motivational orientation program appears to be important in improving outcomes for maltreating parents (Chaffin et al., 2009; 2011).
- Some programs (e.g., Webster-Stratton Incredible Years Program) might be effective in improving some outcomes associated with physically abusive parenting (SR) (Barlow et al., 2006).
- The SafeCare (SC) model for child neglect, a home-based behavioural skills training program reduced recidivism among a child protection services sample (scaled-up RCT) (Chaffin et al., 2012).
- Project Support, a program of child management education and support for mothers shows promise in reducing recidivism of maltreatment (RCT) (Jouriles et al., 2010); further evaluation is needed.
- A program of multisystemic therapy for child abuse and neglect (MST-CAN) shows promise in improving mental health outcomes and out-of-home placements among physically-abused youth (RCT) (Swenson et al., 2010); further evaluation is needed.
- A program of intensive nurse home visitation was not effective in preventing recurrence of physical abuse or neglect (RCT) (MacMillan et al., 2005).
- There is preliminary evidence that an attachment-based home visitation program for maltreating families can improve maternal sensitivity and child outcomes; further evaluation is needed (RCT) (Moss et al., 2011).
- There is limited evidence from small studies that resilient-peer training, imaginative play training, therapeutic day training, and multi-systemic therapy improve a neglected child's outcomes (SR); further evaluation is needed (Allin et al., 2005).

Sexual abuse

- Cognitive-behavioural therapy (CBT) can improve specific mental health outcomes for sexually abused children with post-traumatic stress symptoms, including post-traumatic stress disorder (PTSD), anxiety, and depression; there is conflicting evidence about reducing child behavioural problems (SR) (Stallard, 2006; Macdonald et al., 2012).
- Increasingly, there is evidence that trauma-focused cognitive-behavioral therapy (TF-CBT) is effective for children with PTSD symptoms associated with exposure to one or more types of child maltreatment (SR) (Leenarts et al., 2013) (see also exposure to IPV below).
- There is evidence for the effectiveness of psychological therapies in general, especially CBT, in treating children with PTSD symptoms, however to date, RCTs have included samples of children where the type of CM related to PTSD was sexual abuse and IPV (SR) (Gilles et al., 2013).
- There is no evidence for the use of psychoanalytic/psychodynamic psychotherapy for children and adolescents who have been sexually abused (SR) (Parker et al., 2013).

Programs for child molesters

- There is weak evidence for medical and psychological treatments to reduce recidivism among identified sexual abusers (SR) (Långstrom et al., 2013). There is some evidence that multisystemic therapy can reduce reoffence by adolescents (RCT) (Borduin et al., 2009); further evaluation is needed.



Emotional abuse and exposure to IPV*

- There is limited evidence of the effectiveness of interventions specifically designed for parents or caregivers who emotionally abuse their children (Barlow & Schrader-McMillan, 2010).
- Group-based cognitive-behavioural therapy might be effective with some parents (Sanders et al., 2004).
- There is some evidence for mother-child therapy in reducing children's internalizing and externalizing behaviour problems and symptoms in families where children are exposed to IPV (RCT) (Lieberman et al., 2005, 2006).
- There is some evidence for community-provided TF-CBT in improving children's IPV-related PTSD and anxiety symptoms (RCT) (Cohen et al., 2011).

**For information regarding preventing recurrence of IPV, please refer to PreVAiL's [IPV Research Brief](#).*

Global interventions: Foster care and family preservation programs*

**For additional programs that show promise in improving child health and welfare outcomes among those involved in the foster care system, please refer to Goldman et al., 2013 (SRs).*

- Placement in foster care and not reunifying with biological parents can lead to benefits for maltreated children (cohort study) (Taussig et al., 2001).
- Enhanced foster care can lead to better mental-health outcomes for children than can traditional foster care (MacMillan et al., 2009), but the evidence is mixed (RCT) (Green et al., 2013).
- There is no evidence that family preservation programs are effective in reducing impairment or recurrence (Dagenais et al., 2004).
- There is evidence for a brief foster parent training program (Keeping Foster Parents Trained and Supported (KEEP)) in reducing child behaviour problems (RCT) (Chamberlain et al., 2008; Price et al., 2008).
- There is evidence for a mentoring and skills group program in improving child outcomes among maltreated children in foster care (Taussig & Culhane, 2010; Taussig et al., 2012)
- It is unclear whether the implementation of child protection polices in developed countries over the last 40 years is associated with reduction in child maltreatment (Gilbert et al., 2012).

Practice & Policy Implications of Current Best Evidence

- Based on currently available evidence, health care providers and settings should:
 - implement those programs where there is evidence of effectiveness and ensure that any "new" interventions undergo rigorous evaluation before widespread implementation;
 - be alert to the signs and symptoms associated with child maltreatment;
 - ensure that children exposed to maltreatment are assessed to determine ways to prevent recurrence as well as approaches to reducing impairment associated with maltreatment depending on their presenting signs and symptoms (such as CBT for children with PTSD symptoms).
- Education of health care providers and settings about the importance of child maltreatment is a public health problem priority; it should not only be a concern of child welfare professionals.
- Those caring for children should be aware of the significant mental health co-morbidities associated with current and past maltreatment exposures.



What We Don't Know – Research Gaps

There is an urgent need for rigorous intervention research (Wathen et al., 2012). According to a recent US Agency for Healthcare Research and Quality (AHRQ) Review (SRs) (Goldman et al., 2013), the strength of evidence is low for the majority of interventions for children exposed to maltreatment. The following evidence-based knowledge is required:

- universally acceptable definitions of physical abuse, sexual abuse, neglect, emotional abuse and exposure to IPV;
- adequate instruments to measure all types of maltreatment, but especially neglect and emotional abuse;
- national estimates for the prevalence of, and delineation of causal risk factors for, all forms of child maltreatment;
- determination of protective factors that prevent a maltreated child from experiencing negative outcomes in childhood, adolescence or adulthood;
- knowledge of how risk and protective factors, including resilience factors, work to produce consequences;
- development, implementation and rigorous evaluation of:
 - prevention strategies for each type of maltreatment, but especially neglect and emotional abuse;
 - treatment strategies including interventions for maltreating parents and for abused and neglected children, as well as for services offered by the child welfare, justice and mental health systems;
- further evaluation of the relationship between exposure to CM and other forms of violence across the lifespan and of the role of social determinants of health, such as income, in the causes and consequences of, and interventions for, child maltreatment.

How to cite this document

MacMillan, HL, Wathen, CN. Research Brief: Interventions to Prevent Child Maltreatment. PreVAiL: Preventing Violence Across the Lifespan Research Network. London, ON. 2014.

For more information

www.PreVAiLResearch.ca  Harriet MacMillan – macmilnh@mcmaster.ca  Nadine Wathen – nwathen@uwo.ca



References

- Allin H, Wathen CN, MacMillan H. Treatment of child neglect: a systematic review. *Can J Psychiatry* 2005;50(8):497-504.
- Andrews G, Corry J, Slade T, Issakidis C, Swanston H. Child sexual abuse. In: Ezzati M, Lopez AD, Rodgers A, Murray CJL, editors. *Comparative quantification of health risks: global and regional burden of disease attributable to selected major risk factors*. Geneva: World Health Organization. pp. 1851–940.
- Avellar SA, Supplee LH. Effectiveness of home visiting in improving child health and reducing child maltreatment. *Pediatrics* 2013;132(Suppl 2):S90-9.
- Bakermans-Kranenburg MJ, van IJzendoorn MH, Juffer F. Less is more: meta-analyses of sensitivity and attachment interventions in early childhood. *Psychol Bull* 2003;129(2):195-215.
- Barlow J, Johnston I, Kendrick D, Polnay L, Stewart-Brown S. Individual and group-based parenting programmes for the treatment of physical child abuse and neglect. *Cochrane Database Syst Rev* 2006;(3):CD005463.
- Barlow J, Schrader-McMillan A. *Safeguarding children from emotional maltreatment: What works?* London: Jessica Kingsley, 2010.
- Barr RG, Barr M, Fujiwara T, Conway J, Catherine N, Brant R. Do educational materials change knowledge and behaviour about crying and shaken baby syndrome? A randomized controlled trial. *CMAJ* 2009;31;180(7):727-33.
- Barr RG, Rivara FP, Barr M, Cummings P, Taylor J, Lengua LJ, et al. Effectiveness of educational materials designed to change knowledge and behaviors regarding crying and shaken-baby syndrome in mothers of newborns: a randomized, controlled trial. *Pediatrics* 2009;123(3):972-80.
- Borduin CM, Schaeffer CM, Heiblum N. A randomized clinical trial of multisystemic therapy with juvenile sexual offenders: effects on youth social ecology and criminal activity. *J Consult Clin Psychol* 2009;77;26-37.
- Chaffin M, Funderburk B, Bard D, et al. A combined motivation and Parent-Child Interaction Therapy package reduces child welfare recidivism in a randomized dismantling field trial. *J Consult Clin Psychol* 2011;79(1):84-95.
- Chaffin M, Hecht D, Bard D, Silovsky JF, Beasley WH. A statewide trial of the SafeCare home-based services model with parents in child protective services. *Pediatrics* 2012;129(3):509-15.
- Chaffin M, Silovsky JF, Funderburk B, Valle LA, Brestan EV, Balachova T, et al. Parent-child interaction therapy with physically abusive parents: efficacy for reducing future abuse reports. *J Consult Clin Psychol* 2004;72(3):500-10.
- Chaffin M, Valle LA, Funderburk B, et al. A motivational intervention can improve retention in PCIT for low-motivation child welfare clients. *Child Maltreat* 2009;14(4):356-68.
- Chamberlain P, Price J, Leve LD, et al. Prevention of behavior problems for children in foster care: outcomes and mediation effects. *Prev Sci* 2008;9(1):17-27.
- Cohen JA, Mannarino AP, Iyengar S. Community treatment of posttraumatic stress disorder for children exposed to intimate partner violence: a randomized controlled trial. *Arch Pediatr Adolesc Med* 2011;165(1):16-21.
- Dagenais C, Bégin J, Bouchard C, Fortin D. Impact of intensive family support programs : a synthesis of evaluation studies. *Child Youth Serv Rev* 2004;26:249-63.
- Dias MS, Smith K, DeGuehery K, et al. Preventing abusive head trauma among infants and young children: a hospital-based, parent education program. *Pediatrics* 2005;115(4):e470-7.
- Dubowitz H, Feigelman S, Lane W, Kim J. Pediatric primary care to help prevent child maltreatment: the Safe Environment for Every Kid (SEEK) model. *Pediatrics* 2009;123(3):858-64.
- Dubowitz H, Lane WG, Semiatin JN, Magder LS. The SEEK model of pediatric primary care: can child maltreatment be prevented in a low-risk population? *Academic Pediatrics* 2012;12(4):259-68.
- Fergusson DM, Boden JM, Horwood LJ. Nine-year follow-up of a home-visitation program: a randomized trial. *Pediatrics* 2013;131(2):297-303.
- Fergusson DM, Grant H, Horwood LJ, Ridder EM. Randomized trial of the Early Start program of home visitation. *Pediatrics* 2005; 116(6): e803–09.
- Fujiwara T, Yamada F, Okuyama M, Kamimaki I, Shikoro N, Barr RG. Effectiveness of educational materials designed to change knowledge and behavior about crying and shaken baby syndrome: a replication of a randomized controlled trial in Japan. *Child Abuse Negl* 2012;36(9):613-20.
- Gilbert R, Spatz Widom C, Browne K, Fergusson D, Webb E, Janson S. Burden and consequences of child maltreatment in high-income countries. *Lancet* 2009;373(9657):68-81.



- Gilbert R, Fluke J, O'Donnell M, Gonzalez-Izquierdo A, Brownell M, Gulliver P, Janson S, Sidebotham P. Child maltreatment: variation in trends and policies in six developed countries. *Lancet* 2012;379(9817):758-72.
- Gillies D, Taylor F, Gray C, O'Brien L, D'Abrew N. Psychological therapies for the treatment of post-traumatic stress disorder in children and adolescents. *Cochrane Database Syst Rev* 2012;12:CD006726.
- Goldman Fraser J, Lloyd SW, Murphy RA, Crowson MM, Casanueva C, Zolotor A, et al. *Child exposure to trauma: comparative effectiveness of interventions addressing maltreatment. Comparative Effectiveness Review No. 89.* AHRQ Publication No. 13-EHC002-EF. Rockville, MD: Agency for Healthcare Research and Quality, 2013.
- Green JM, Biehal N, Roberts C, et al. Multidimensional Treatment Foster Care for Adolescents in English care: randomised trial and observational cohort evaluation. *Br J Psychiatry* Dec 19, 2013 (Epub ahead of print).
- Guterman NB, Tabone JK, Bryan GM, Taylor CA, Napoleon-Hanger C, Banman A. Examining the effectiveness of home-based parent aide services to reduce risk for physical child abuse and neglect: six-month findings from a randomized clinical trial. *Child Abuse Negl* 2013;37(8):566-77.
- Hibbard R, Barlow J, MacMillan H, Committee on Child Abuse and Neglect, American Academy of Child and Adolescent Psychiatry, Child Maltreatment and Violence Committee. Psychological maltreatment. *Pediatrics* 2012;130(2):372-8.
- Jouriles E, McDonald R, Rosenfield D, Norwood W, Spiller L, Stephens N, et al. Improving parenting in families referred for child maltreatment: a randomized controlled trial examining effects of Project Support. *J Fam Psychol* 2010;24(3):328-38.
- Kitzman H, Olds DL, Henderson CR Jr, Hanks C, Cole R, Tatelbaum R, et al. Effect of prenatal and infancy home visitation by nurses on pregnancy outcomes, childhood injuries, and repeated childbearing: A randomized controlled trial. *JAMA* 1997;278(8):644-52.
- Knerr W, Gardner F, Cluver L. Improving positive parenting skills and reducing harsh and abusive parenting in low- and middle-income countries: a systematic review. *Prev Sci* 2013;14(4):352-63.
- Långström N, Enebrink P, Laurén EM, Lindblom J, Werkö S, Hanson RK. Preventing sexual abusers of children from reoffending: systematic review of medical and psychological interventions. *BMJ* 2013;347:f4630.
- Leenarts LEW, Diehle J, Doreleijers TAH, Jansma EP, Lindauer RJL. Evidence-based treatments for children with trauma-related psychopathology as a result of childhood maltreatment: a systematic review. *Eur Child Adolesc Psychiatry* 2013;22(5):269-83.
- Lieberman AF, Van Horn P, Ippen CG. Toward evidence-based treatment: child-parent psychotherapy with preschoolers exposed to marital violence. *J Am Acad Child Adolesc Psychiatry* 2005;44(12):1241-8.
- Lieberman AF, Ghosh Ippen C, Van Horn P. Child-parent psychotherapy: 6-month follow-up of a randomised controlled trial. *J Am Acad Child Adolesc Psychiatry* 2006; 45(8):913-8.
- Lowell DI, Carter AS, Godoy L, Paulicin B, Briggs-Gowan MJ. A randomized controlled trial of Child FIRST: a comprehensive home-based intervention translating research into early childhood practice. *Child Dev* 2011;82(1):193-208.
- Macdonald G, Higgins JP, Ramchandani P, Valentine JC, Bronger LP, Klein P, et al. Cognitive-behavioural interventions for children who have been sexually abused. *Cochrane Database Syst Rev* 2012;5:CD001930.
- MacMillan HL, Thomas BH, Jamieson E, Walsh CA, Boyle MH, Shannon HS et al. Effectiveness of home visitation by public-health nurses in prevention of the recurrence of child physical abuse and neglect: a randomised controlled trial. *Lancet* 2005;365(9473):1786-93.
- MacMillan HL, Wathen CN, Barlow J, Fergusson DM, Leventhal JM, Taussig HN. Interventions to prevent child maltreatment and associated impairment. *Lancet* 2009;373(9659):250-66.
- McCrory E, De Brito SA, Viding E The link between child abuse and psychopathology: a review of neurobiological and genetic research. *J R Soc Med* 2012;105(4): 151-56.
- Mikton C, Butchart A. Child maltreatment prevention: a systematic review of reviews. *Bull World Health Organ* 2009;87(5):353-61.
- Miller GE, Chen E, Parker K J. Psychological stress in childhood and susceptibility to the chronic diseases of aging: moving toward a model of behavioral and biological mechanisms. *Psychol Bull* 2011; 137(6), 959-97.
- Moss E, Dubois-Comtois K, Cyr C, Tarabulsy GM, St-Laurent D, Bernier A. Efficacy of a home-visiting intervention aimed at improving maternal sensitivity, child attachment, and behavioral outcomes for maltreated children: a randomized control trial. *Dev Psychopathol* 2011; 23(1):195-210.
- Naughton AM, Maguire SA, Mann MK, Lumb RC, Tempest V, Gracias S, et al. Emotional, behavioral, and developmental features indicative of neglect or emotional abuse in preschool children: a systematic review. *JAMA Pediatr* 2013;167(8):769-75.



- Norman RE, Byambaa M, De R, Butchart A, Scott J, et al. The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. *PLoS Med* 2012;9(11): e1001349.
- Olds DL, Eckenrode J, Henderson CR Jr, Kitzman H, Powers J, Cole R, et al. Long-term effects of home visitation on maternal life course and child abuse and neglect. Fifteen-year follow-up of a randomized trial. *JAMA* 1997;278(8):637-43.
- Olds DL, Henderson CR Jr, Chamberlin R, Tatelbaum R. Preventing child abuse and neglect: a randomized trial of nurse home visitation. *Pediatrics* 1986;78(1):65-78.
- Olds DL, Sadler L, Kitzman H. Programs for parents of infants and toddlers: recent evidence from randomized trials. *J Child Psychol Psychiatry* 2007;48(3-4):355–91.
- Parker B, Turner W. Psychoanalytic/psychodynamic psychotherapy for children and adolescents who have been sexually abused. *Cochrane Database Syst Rev* 2013;7:008162.
- Price JM, Chamberlain P, Landsverk J, et al. Effects of a foster parent training intervention on placement changes of children in foster care. *Child Maltreat* 2008;13(1):64-75.
- Prinz RJ, Sanders MR, Shapiro CJ, Whitaker DJ, Lutzker JR. Population-based prevention of child maltreatment: the U.S. Triple P system population trial. *Prev Sci* 2009;10(1):1-12.
- Public Health Agency of Canada. *Canadian Incidence Study of Reported Child Abuse and Neglect – 2008: Major Findings*. Ottawa, 2010.
- Sanders MF, Pidgeon AM, Gravestock F, Connors MD, Brown S, Young RW. Does parental attributional retraining and anger management enhance the effects of the Triple P-Positive Parenting Program with parents at risk of child maltreatment? *Behav Ther* 2004;35(3):513-35.
- Selph SS, Bougatsos C, Blazina I, Nelson HD. Behavioral interventions and counseling to prevent child abuse and neglect: A systematic review to update the US Preventive Services Task Force recommendation. *Ann Intern Med* 2013;158(3):179-90.
- Stallard P. Psychological interventions for post-traumatic reactions in children and young people: a review of randomized controlled trials. *Clin Psychol Rev* 2006;26(7):895-911.
- Stoltenborgh M, Bakermans-Kranenburg MJ, Alink LRA, van IJzendoorn MH. The universality of childhood emotional abuse: a meta-analysis of worldwide prevalence. *J Aggress Maltreat Trauma* 2012; 21:8, 870-90.
- Stoltenborgh M, Bakermans-Kranenburg MJ, van IJzendoorn MH. The neglect of child neglect: a meta-analytic review of the prevalence of neglect. *Soc Psychiatry Psychiatr Epidemiol* 2013;48(3):345-55.
- Stoltenborgh M, van IJzendoorn MH, Euser EM, Bakermans-Kranenburg MJ. A global perspective on child sexual abuse: meta-analysis of prevalence around the world. *Child Maltreat* 2011;16(2):79-101.
- Stoltenborgh M, Bakermans-Kranenburg MJ, van IJzendoorn MH, Alink LRA. Cultural-geographical differences in the occurrence of child physical abuse? A meta-analysis of global prevalence. *Int J Psychol* 2013;48(2):81-94.
- Swenson CC, Schaeffer CM, Henggeler SW, Faldowski R, Mayhew AM. Multisystemic therapy for child abuse and neglect: a randomized effectiveness trial. *J Fam Psychol* 2010;24(4):497-507.
- Taussig HN, Clyman RB, Landsverk J. Children who return home from foster care: a 6-year prospective study of behavioral health outcomes in adolescence. *Pediatrics* 2001;108(1):E10.
- Taussig HN, Culhane SE. Impact of a mentoring and skills group program on mental health outcomes for maltreated children in foster care. *Arch Pediatr Adolesc Med* 2010;164(8):739-46.
- Taussig HN, Culhane SE, Garrido E, Knudtson MD. RCT of a mentoring and skills group program: placement and permanency outcomes for foster youth. *Pediatrics* 2012;130(1):e33-9.
- Wathen CN, MacGregor JC, Hammerton J, Coben JH, Herrman H, Stewart DE, MacMillan HL; PreVAiL Research Network. Priorities for research in child maltreatment, intimate partner violence and resilience to violence exposures: results of an international Delphi consensus development process. *BMC Public Health*. 2012;12:684.
- Wathen, CN, MacMillan, HL. *Research Brief: Identifying and responding to intimate partner violence against women*. PreVAiL: Preventing Violence Across the Lifespan Research Network. London, ON. 2014.
- World Health Organization and International Society for Prevention of Child Abuse and Neglect. *Preventing child maltreatment: A guide to taking action and generating evidence*. WHO Press: Geneva. 2006.
- Zielinski DS, Eckenrode J, Olds DL. Nurse home visitation and the prevention of child maltreatment: impact on the timing of official reports. *Dev Psychopathol* 2009;21(2):441-53.
- Zwi KJ, Woolfenden SR, Wheeler DM, O'Brien TA, Williams KW. School-based education programmes for the prevention of child sexual abuse. *Cochrane Database Syst Rev* 2008; 2.

