

Child Maltreatment

Xutong Zhang, Ph.D.¹ (zhanx428@mcmaster.ca), Christine Wekerle, Ph.D.¹ (wekerle@mcmaster.ca), Ben Mathews, Ph.D.² (b.mathews@qut.edu.au), Andrea Gonzalez, Ph.D.¹ (gonzal@mcmaster.ca)

¹McMaster University, Hamilton, ON, Canada

²Queensland University of Technology, Brisbane, Australia

Abstract

Child maltreatment (CM) includes all forms of abuse or neglect against minors that result in measurable harm or injury, or risk thereof, to the child or adolescent. There are five main classifications of CM: physical, sexual, and emotional abuse, neglect, and exposure to intimate partner violence. Evidence is robust in terms of the negative consequences of child maltreatment across development and multiple domains of functioning. Although structural factors are recognized to impact child protection by systems (e.g., police, child welfare), primary prevention of CM remains a top priority. This chapter provides an overview of the epidemiology and etiology of CM, its association with adverse developmental and health outcomes, and the evidence base for preventive interventions.

Keywords

Child neglect, Child physical, emotional and sexual abuse, Child protection, Consequences of maltreatment, Epidemiology, Etiology, Exposure to intimate partner violence,

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Preventive interventions, Public health, Risk and protective Factors

Objectives

- Provide an overview of the definition and classification of CM
- Review evidence on the prevalence of CM and related methodological considerations
- Review theories and empirical research on the etiology and consequences of CM
- Discuss the evidence base for the prevention of CM and related impairment

Glossary

Child emotional maltreatment (also termed child psychological maltreatment): Child emotional maltreatment includes emotional abuse and emotional neglect, which involve actions that make the child feel worthless, unwanted or unloved, fearful and traumatized (i.e., through terrorizing, rejecting, isolating, bullying, or any exploitation, as well as ignoring or disregarding the child's basic needs for attention and affection).

Child exposure to intimate partner violence (IPV): This form involves witnessing or hearing the physical and/or psychological events or impact of IPV, which may involve physical, psychological, sexual, and economic abuse, as well as other forms of coercive control.

Child neglect: Child neglect involves parental failure to meet a child's basic physical, emotional, medical/dental, or educational needs as suited to the child's developmental stage and recognized by the child's cultural context. Failure to provide adequate nutrition, clothing, shelter, and supervision, or to protect the child's safety is also recognized as neglect.

Child physical abuse: Child physical abuse is the use of physical force against a child, including a range of behaviors such as hitting, kicking, biting, pinching, shaking, throwing, strangling, burning, and poisoning. It may result in visible injury (e.g., bruises, burns, fractures, and dental

issues) or even fatality. This includes non-accidental head injury/abusive head trauma, especially relevant among infants from shaking and heads hitting hard surfaces, and factitious disorder imposed on a child (formerly known as Munchausen by Proxy).

Child protection services (CPS): Concerns about parents or legal guardians abusing or neglecting their child are reported to CPS or child welfare agencies in many countries.

Child sexual abuse: Child sexual abuse involves any sexual act inflicted by an adult or other person on a child, including contact acts (e.g., touching, rape), non-contact acts (e.g., voyeurism, exhibitionism), and involvement of the child in pornography, where the child either lacks capacity to give consent, or has capacity to give consent but has not provided it freely and voluntarily.

“The personality formed in an environment of coercive control is not well adapted to adult life.

The survivor is left with fundamental problems in basic trust, autonomy, and initiative.”

(Herman, 1992, Trauma and Recovery, p. 110).

Introduction

Child maltreatment (CM) can represent the greatest failure of the social safety net to provide loving care and promote normal development, as it is a modifiable risk factor for a wide range of physical, mental, and financial health problems. CM includes all forms of abusive or neglectful treatment committed by caregivers or other adults against minors that result in actual or potential harm to the child. Actions by another minor can also constitute CM (e.g., sexual abuse perpetrated by another minor; the definition in research usually includes an age differential

criteria of at least 3 to 5 years older than the victimized child). There are four widely accepted categories of CM: child physical abuse, sexual abuse, emotional maltreatment, and neglect. Exposure to adult intimate partner violence (IPV), or more broadly, exposure to any violence occurring in the family, is also recognized as a form of CM because child victims often present with a similar profile of problems as those who directly experience abuse. Increasingly, exposure to IPV is examined as a unique category of maltreatment, rather than a form of child emotional abuse (McTavish *et al.*, 2016). The risk of overlap amongst the different forms of maltreatment is significant. CM is further characterized by its parameters such as age of onset, developmental timing, chronicity, severity, perpetrator relationship (e.g., attachment figure vs. stranger), and responses to disclosures (Manly, 2005; McTavish *et al.*, 2019). Obtaining these details is important for rigorous measurement of CM (Mathews *et al.*, 2020) and for examining children's specific experiences and understandings as well as how their neurobiological development is impacted (Smith & Pollak, 2021). These parameters may also be the key to understanding multifinality (the same form of CM associated with differential outcomes) and multi-causality (different forms of CM associated with similar outcomes).

CM occurs on a wide spectrum, with some children experiencing one or a few minor events, while others may experience persistent severe maltreatment across multiple forms. At the more severe end of the spectrum, CM can involve not only the experience of adverse events and living in aversive environments, but also the lack of positive developmental experiences and contexts. The impact of CM can range from minimal symptomatology to significant functional impairment, and may manifest immediately following exposure and/or unfold over time. CM is a causal or contributing factor in child abuse fatalities (e.g., extended malnutrition, failures to supervise or seek medical treatment, fatal injury, IPV-related collateral homicide; Palusci &

Covington, 2014; Smith *et al.*, 2014). In the U.S., 5 children die every day from abuse or neglect, overwhelmingly perpetrated by parents (Child Welfare Information Gateway, 2021). CM is also a well-established risk factor for suicidality, with all forms linked with elevated risk for suicide attempts among children and young adults; childhood experience of sexual abuse, in particular, is related to a 4-fold increase in the risk for suicide plans among adolescents (Angelakis *et al.*, 2020). It has become clear that CM prevention is a critical form of fatality prevention and physical and mental health promotion.

CM has plagued communities across cultures, socioeconomic gradients, and time itself. Health disparities, uneven opportunities, and socioeconomic disadvantage can further contribute to risks for CM. In the U.S., approximately 7.9 million children were involved in 4.4 million referrals to Child Protective Services (CPS) in 2019, and nearly 700,000 children were victims of substantiated CM, indicating that many children and youth today need to be protected (US Department of Health and Human Services [USHHS], 2021). Based on substantiated CPS reports in U.S. and Canada, over 80% of maltreatment is perpetrated by parents or guardians (USHHS, 2021; Fallon *et al.*, 2020), except for sexual abuse which is commonly perpetrated by acquaintances or other relatives and caregivers. The paradox herein is that the very individuals charged with the child's healthy development are the ones most likely to jeopardize it. In addition to accumulating knowledge on the magnitude and consequence of the problem, there is also emerging evidence on resilience in the context of CM, and the prevention of maltreatment and related impairments is a top priority for healthy development over the life course (Wekerle, 2011; Yoon *et al.*, 2021).

Historically, some forms of CM attracted various types of legal responses at different stages of the twentieth century. Similarly, different forms of CM have become recognized as a

public health priority at different times in the twenty-first century, as research evidence mounted on the prevalence of these experiences and their associated adverse outcomes for physical and mental health and psychosocial adjustment (Carr *et al.*, 2020; Fry *et al.*, 2012; Norman *et al.*, 2012). Child protection is central to the United Nations (UN) 2030 Sustainable Development Goals (SDG) emanating from the near-global adoption of the UN Convention on the Rights of the Child (United Nations General Assembly, 2015). In particular, Goal 16 addresses *peace, justice, and strong institutions*, including an aim to end all forms of violence against children. In some jurisdictions, legislation imposes a duty on designated professionals to report known cases or reasonable suspicions of significant maltreatment to CPS, which should initiate investigations and responses following local policies (ISPCAN, 2021). In the U.S., the American Academy of Pediatrics has developed clinician guidelines reviewing different forms of CM (e.g., Christian *et al.*, 2015; Flaherty *et al.*, 2013), and institutions such as the Office of the Surgeon General and the Centers for Disease Control and Prevention determine strategic directions for injury- and violence-free living. CM is best regarded as a community problem within a broad public health model, and the prevention of CM requires structural and systemic support for positive parenting aligned with the provision of basic needs for safe housing, safe resources (e.g., running water, nutrition, childcare), and child safeguarding.

Epidemiology

Statistics on the rates and trends of CM vary by specific indicators and data sources. Official records from Canada, U.S., and U.K. indicate that 2–5% of all children are referred to or investigated by CPS every year, and approximately 0.68–1.21% of children are involved in substantiated cases (Gilbert *et al.*, 2009). Gilbert *et al.* (2009) concluded that the leading reasons

for referral were neglect, emotional abuse, physical abuse, and sexual abuse. Despite policy initiatives targeting child protection, a review found no consistent evidence for a decreasing trend across several indicators of CM (e.g., CM-related death and injury admission, contact with CPS) over 30 years in six developed countries (Gilbert *et al.*, 2012), although Finkelhor *et al.* (2021) have posited that there have been declines in physical and sexual abuse in the U.S. since the 1990s based on state CPS records. It is important to consider how major events and social changes influence the trends reflected in official statistics. For example, in the months following March, 2020, as schools and many other public places were closed due to the COVID-19 pandemic, referrals to CPS decreased by over 20% compared to the same period in 2019, largely due to a decline in reports by education personnel (USHHS, 2022). Further research is needed to establish trends over time, and this requires repeated population studies in the same locations.

It is well-established that the cases captured by official statistics represent only the ‘tip of the iceberg’, with the vast majority of children who experience CM not coming to the attention of CPS. Therefore, community studies utilizing self-reports by children or adults, or reports by children’s parents as proxies, have become an important source to estimate the true rates of CM. Different approaches to measurement mean that findings from different studies must be interpreted with great care and precision (Mathews et al. 2020). However, careful meta-analyses can provide relatively firm indications of the magnitude of maltreatment across the globe. A meta-analysis of studies of self-reported emotional abuse found approximately 36.3% of all children were victimized, with both boys (36.3%), and girls (38.4%) experiencing similar levels, and with higher rates in Africa, Asia and North America (Stoltenborgh et al. 2012). For physical abuse, a meta-analysis found that approximately 22.6% of all children were victimized, with similar outcomes across locations and for girls and boys (Stoltenborgh et al. 2013). Similarly, a

meta-analysis of sexual abuse found that approximately 12.7% of all children were victimized, with girls (18.0%) experiencing this form of abuse more frequently (Stoltenborgh et al. 2011). Overall, these studies based on children's and adults' self-report of their own experiences estimate 10 to 30 times higher rates than official statistics. A recent global estimate based on published representative data concluded that over 1 billion children experienced some form of physical, sexual, or emotional violence in the prior year, with Asian, African, and Northern American regions having the highest minimum prevalence (Hillis et al. 2016). Exposure to IPV or broader family violence, including directly witnessing the violence or living in a home where IPV creates a climate of fear and lack of safety, is rarely captured by official statistics. There has not been a meta-analytic estimate of global prevalence, but a few studies based on national or regional representative data have estimated that approximately 20% of children witness physical violence between their parents or other family members, and the rates are higher for witnessing psychological violence (Chan, 2011; Finkelhor *et al.*, 2013).

In addition to overall rates, specific forms and parameters of CM also have differential representations in the current official statistics versus prevalence estimates based on self- or proxy-report. For example, although neglect and emotional abuse are the most frequently substantiated categories of maltreatment recognized by CPS, these abuse types are often omitted (Stoltenborgh *et al.*, 2015) or not adequately conceptualized and operationalized (Mathews *et al.*, 2020) in prevalence studies. This discrepancy highlights the need for population studies to expand the scope of questions to include the broad spectrum of maltreatment types. Furthermore, based on self-report studies, about half of maltreated children are exposed to multiple types and repeated experiences of maltreatment (Warmingham *et al.*, 2019; Ziobrowski *et al.*, 2020), which are often not captured by official reports.

So far, most data on CM prevalence is from North America and Europe, but an emerging body of research has estimated similar ranges of self-reported lifetime prevalence rates for all categories of CM across continents (Stoltenborgh *et al.*, 2015). Moreover, a recent systematic review identified rigorous studies on the prevalence of CM in many countries or regions (Mathews *et al.*, 2020), and the Violence Against Children Surveys project among others is contributing valuable new evidence from countries across the globe (e.g., Nguyen *et al.*, 2021; Nguyen *et al.*, 2019).

Etiology of Child Maltreatment

Research on the etiology of CM has evolved over the last 40 years with theories shifting from single cause models (e.g., intergenerational transmission of abuse, poverty, or parental psychopathology as single risk factors) to more integrative, biological and ecological models in which risk factors at individual, family, and environmental levels interact. These levels range from broad-scale contexts (e.g., the impact of governmentally mandated residential schooling for First Nations children) to more proximal risks (e.g., caregiver substance abuse), with a notion of primacy of effect with family- and caregiver-level factors. Etiology research guides the development of risk assessment tools that aim to predict the probability of CM occurrence and recurrence based on the presence of risk factors (van der Put *et al.*, 2017), which then inform the planning and delivery of preventive services. It is important to note that risk factors, even the ones that show relatively strong predictive values, are not deterministically associated with CM occurrence. For example, although parental history of childhood maltreatment has been advanced as a key risk factor for CM, a recent meta-analysis suggests that the intergenerational

association is modest in its overall strength, varies by specific forms of CM (stronger for physical and emotional abuse compared to sexual abuse and neglect), and is less evident in more methodologically rigorous studies (Madigan *et al.*, 2019).

Two complementary models have been proposed for the etiology of CM. Belsky's (1980) ecological model is comprised of four interrelated, embedded categories: (1) ontogenic (factors within the individual parent which influence perpetration of abuse; e.g., parent's history of abuse), (2) microsystem (e.g., aspects of the family environment), (3) exosystem (e.g., access to social services), and (4) macrosystem (e.g., cultural determinants and societal acceptance of corporal punishment). Interactions between all levels influence the risk of perpetration of maltreatment, but risk factors closer to the individual play a greater role. Belsky (1984) further proposed the determinants of parenting model, identifying forces that may directly influence parenting behaviors emanating from the parent (personality), the child (child characteristics), and the social context of parent-child interaction (e.g., marital relations, occupational stress). Belsky's models highlight the multiple and interactive determinants of parenting, giving primacy to parental factors in the etiology of child maltreatment.

A second model, the ecological–transactional model, developed by Cicchetti and Lynch (1993), proposed that the balance between potentiating factors (which increase the likelihood of maltreatment) and compensatory factors (which decrease the likelihood of maltreatment) is represented at each level of ecological influence (culture, community, and family) and determines the probability of maltreatment occurrence at a given time. If potentiating factors outweigh compensatory factors, the risk for the occurrence of CM increases. Given there are an infinite number of ways that risk factors at each level can interact, there are multiple pathways to

the occurrence of maltreatment. This approach has been furthered by research on the neurobiological mechanisms (e.g., maternal executive function, maternal hormonal alteration) linking ecological influence with individuals' neurobiological capacity for appropriate parenting (Barrett & Fleming, 2011; Gonzalez et al., 2012).

There are key risk indicators for specific forms of CM at each level – individual, family, and community (see Gonzalez & MacMillan, 2008, for an overview). Consistent with Belsky's perspective, parental factors, including parents' irritability, stress, mental health problems, and perception of their children, are among the strongest risk factors for physical abuse and neglect (Stith *et al.*, 2009). These proximal parental risk factors sometimes overlap with other interrelated adverse conditions within which CM occurs (e.g., parents' experience of early adversity, alcohol and drug misuse, and homelessness; Appleyard *et al.*, 2011; Stein *et al.*, 2002; Young *et al.*, 2007). At the child level, females are at greater risk for sexual abuse, but gender differences in other categories of CM vary across sociocultural contexts (Moody *et al.*, 2018). The role of child age or developmental stage in the risk of CM is not yet clear due to challenges in measuring the onset of maltreatment. Children under the age of 5 and adolescents may be at greater risk for physical abuse, while sexual abuse is more common among school-age children and adolescents. Other child-level factors associated with increased risk of abuse include low birth weight, child disability, or chronic illness. In addition to individual parent *or* child factors, dyadic patterns in parent-child interaction, such as how dyads cope with conflicts (e.g., Skowron *et al.*, 2010) are also related to CM risks (Stith *et al.*, 2009). Other forms of violence in the family, especially IPV, are risk factors for co-occurring violence against children (Stith *et al.*, 2009). More distal parental (e.g., young age, low education achievement, history of childhood maltreatment), family (e.g., family size, low support from family members), and community

(e.g., poverty, neighborhood violence, poor school and housing situations) risk factors may have direct effects on children, but are more likely to impact children indirectly through their caregivers.

It is important to note that while some factors contribute to increased risk for multiple forms of CM, there can be qualitative differences in etiology between or even within maltreatment types. For example, poverty-based child neglect typically involves profoundly different etiology from physical violence or persistent sexual abuse. These differences are important considerations not only for scientific research but also for prevention efforts and policy responses. It is evident that the occurrence of maltreatment is multiply determined by interrelated factors acting at various levels, and risks at one level may be moderated by protective factors at another level. What is crucial is the interaction and clustering of risk and protective factors, which affect not only the probability of CM but also its impact on children. Across all models, factors most proximal to the child typically have the greatest impact on developmental processes. These proximal factors have the potential to attenuate risk at other levels, or to amplify them, therefore, making these factors key targets for intervention. Many risk and protective factors are not stable characteristics of families; rather, they are dynamic and may emerge at challenging times, necessitating flexible risk-monitoring and prevention systems.

Consequences of Child Maltreatment

As an often recurring and multifold form of childhood adversity, maltreatment can create chronic stress and aberrant developmental contexts when the brain is highly susceptible to noxious environmental inputs (Shonkoff *et al.*, 2009). Children adapt neurobiologically and behaviorally to survive in the maltreating environment but become dysregulated in normative or

novel contexts. Notably, not all maltreated children are affected in the same way; many maltreated children exhibit resilient functioning despite facing significant adversity. However, probabilistically, CM initiates a cascade of developmental processes affecting emotional, social, biological, and cognitive domains (Cicchetti, 2016). Both cross-sectional and longitudinal studies illustrate that exposure to CM is associated with an increased risk for numerous negative mental and physical health outcomes throughout the lifespan (Carr *et al.*, 2020). Some negative outcomes manifest immediately (e.g., physical injuries, traumatic stress symptoms), whereas others may emerge over time or during specific developmental periods (e.g., difficulties in later romantic or caregiving relationships). Maltreated children often show dysregulated physiological and neurobiological processes and deficits in emotion regulation, attachment formation, peer relations, school functioning, and representational processes. These early difficulties lay a compromised biological and social foundation that predisposes maltreated individuals for later mental and physical health problems and more compromised functioning relative to their non-maltreated counterparts.

The impact of CM is dependent on the timing and characteristics of exposure as well as how each child processes their experiences. Unfortunately, it is often difficult to tease apart the impact of maltreatment alone, given that many studies do not control for other early-life stressors, comorbid mental health issues, or household dysfunction (e.g., substance abuse, mental illness, and criminal involvement of household members). However, evidence continues to grow about the specific features of maltreatment that intensify adverse outcomes. For example, exposure to a greater variety of traumatic experiences is associated with more severe mental health problems (Finkelhor *et al.*, 2007). Moreover, maltreatment of greater chronicity and duration across developmental periods is related to a greater risk for mood, antisocial, and

substance use disorders in emerging adulthood (Russotti et al., 2021).

Exposure to specific forms of CM is associated with structural and functional alterations of the brain that are involved in threat and reward processing as well as emotional and behavioral self-regulation (Teicher *et al.*, 2016). Alterations in several neurocognitive functions have been reported in children and/or adults exposed to CM (Masson *et al.*, 2015). For example, individuals who have experienced abuse are more likely to show impairments in general short- and long-term memory function, but enhanced attention to and memory of some negative events or information specifically (e.g., threats; Goodman *et al.*, 2010). Meanwhile, the deprivation of rich environmental inputs (e.g., sensory stimulation, social interaction) in early life, particularly relevant in cases of neglect, can result in delayed and/or atypical neurodevelopment (McLaughlin *et al.*, 2017). Deviations in emotional processing and discrimination (da Silva Ferreira *et al.*, 2014; Young & Widom, 2014) and deficits in executive functions including attention, working memory, inhibitory control, and cognitive flexibility, have also been observed among maltreated children and adults (Lund *et al.*, 2020; Nikulina & Widom, 2013).

Exposure to CM is associated with a number of mental health problems based on both retrospective and prospective studies, including mood disorders (e.g., depression, bipolar disorder), anxiety disorders, post-traumatic stress disorder (PTSD), aggression, psychosomatic disorders, and substance abuse (Carr *et al.*, 2020). A meta-analysis indicates that adults with complex adverse childhood experiences (ACEs), which typically involve CM, are at greater risk for depression, anxiety, and problematic substance abuse (odds ratios ranging from 3.7 to 10.2 compared to individuals without ACEs; Hughes *et al.*, 2017). This is consistent with the findings of other reviews and meta-analyses (Gardner *et al.*, 2019; Norman *et al.*, 2012). The evidence for suicide risk is also clear; the likelihood of attempting suicide is significantly elevated among

young people who have experienced abuse and neglect (Angelakis et al., 2020). Under the influence of traumatic events and ongoing stress, maltreated individuals may engage in maladaptive coping mechanisms that result in adverse behavioral outcomes, such as alcohol and drug use, delinquency, and sexual risk-taking. For many individuals, the onset of mental health disorders begins early and persists across adolescence and adulthood, thereby highlighting the necessity for early interventions to alter these trajectories.

The psychosocial adjustment difficulties associated with CM can have enduring impacts in life. Lower academic achievement and greater special education needs among maltreated children (Romano *et al.*, 2015) can lead to limited employment opportunities (e.g., unskilled occupations; Currie & Widom, 2010) and greater difficulties in maintaining employment in adulthood (Zielinski, 2009). Childhood maltreatment also increases the risk of violence perpetration and/or victimization in adulthood. For example, in a representative Canadian sample, adults who experienced child physical abuse or sexual abuse or were exposed to IPV before age 15 were twice as likely to be victims of IPV (physical, emotional, or sexual violence) than those without a CM history (Shields *et al.*, 2020). Evidence is mixed, however, on whether females with a CM history are more vulnerable to IPV, or whether males and females are comparably vulnerable (Li *et al.*, 2019). Notably, the association between child sexual abuse and adulthood sexual victimization is stronger among males than females in multiple samples, and is evident even after controlling for psychopathology and substance abuse (Werner *et al.*, 2016). There are reports from multiple countries on the state of child sexual exploitation of boys, which recognize that in some contexts and countries, boys may be more vulnerable when targeted for sexual exploitation than females, while females are generally at higher risk for victimization (ECPAT International, 2022). Experience of childhood maltreatment is also related to increased

risk for dating violence or IPV perpetration and victimization in adolescence and adulthood (Godbout *et al.*, 2019; Park & Kim, 2018), as well as perpetration of abuse of one's own children (Assink *et al.*, 2018).

Various studies have shown that childhood maltreatment is associated with higher risk of many physical conditions and chronic illnesses in adulthood including neuroendocrine dysregulation, obesity, chronic pain, cardiovascular disease, diabetes, and cancer (Carr *et al.*, 2020; Scott *et al.*, 2011). Specific types of maltreatment and its severity may contribute to the development of disease. Exposure to CM can increase the risk for long-term physical problems through a variety of mechanisms. In addition to direct physical harms (e.g., from physical or sexual abuse), early adversities can lead to heightened stress, disrupted sleep, increased substance use (e.g., smoking, heavy alcohol use, drug abuse), and comorbid mental disorders that all contribute to poor physical health (Hughes *et al.*, 2017). From a public health perspective, mental health disorders and chronic illnesses lead to increased disability, work absenteeism, and greater healthcare utilization. Taken together, it is clear that maltreatment contributes substantially to the global burden of disease and should be a feature in policy for preventing non-communicable diseases.

Preventive Interventions

Interventions targeting the prevention of maltreatment are essential to mitigate the significant individual and societal impact of CM. From a public health perspective, prevention of the occurrence of maltreatment can be classified into three main categories: (1) prevention before occurrence, (2) prevention of recurrence, and (3) prevention of impairment. Interventions targeting the prevention of maltreatment before occurrence can be further subdivided into

universal programs, directed at the whole population, or targeted programs, aimed at high-risk individuals or groups. Although a number of programs have evidence or are promising (MacMillan *et al.*, 2009), the most evolved and well-studied prevention program with the best evidence for preventing maltreatment in the U.S. context is a targeted, home-visitation program – the Nurse Family Partnership (NFP). The NFP is administered to high-risk families during pregnancy and throughout the first two years of the child’s life. Across multiple randomized controlled trials in the U.S., it has shown reduction in objective measures of maltreatment and associated outcomes, such as child injuries and hospitalizations (Olds *et al.*, 1997; Olds *et al.*, 1986; Olds *et al.*, 2019). However, other international evaluations have produced varying results. For example, robust effects were not found in the UK (Robling *et al.*, 2016), but in the Netherlands, the NFP was found to reduce reports to child protection services (Mejdoubi *et al.*, 2016). A recent meta-analysis of various home visitation programs suggested a small but significant effect on maltreatment ($d = 0.135$, 95% CI = [0.084, 0.187]). Programs that included components that focused on improving parental expectations of parenting or child behavior, targeted parental sensitivity and responsiveness, and/or used video-feedback methods resulted in larger effect sizes (Gubbels *et al.*, 2021), suggesting that implementing core components within home visiting programs may improve effectiveness. Furthermore, a second meta-analysis found that shorter interventions (0-6 months), delivered by professionals, which included components of increasing parental confidence, yielded greater effectiveness (van der Put, *et al.*, 2018).

Evidence regarding the prevention of recurrence is more limited. One program, Parent–Child Interactive Therapy (PCIT; Chaffin *et al.*, 2004), has been evaluated in Australia and the U.S. and shown benefits in preventing the recurrence of physical abuse, reducing parent-perceived child externalizing problems, and increasing maternal sensitivity, but not in preventing

the recurrence of neglect (Batzer *et al.*, 2018; Thomas & Zimmer-Gembeck, 2012). PCIT focuses on increasing parental motivation and skills through direct coaching and practice during dyadic parent–child sessions. Further research is needed to assess its effectiveness for other maltreatment types, in various populations (e.g., foster and adoptive communities, and other situations where achieving program gains can be particularly challenging, such as those involving parental depression or extended CPS history; Jonson-Reid *et al.*, 2018), and long-term outcomes for parents and their children (Batzer *et al.*, 2018).

Finally, programs focusing on the prevention of impairment require thorough assessments of the child and family. These programs are informed by research on resilience among maltreated children, which points to a supportive interpersonal environment and children’s adaptive self-regulation as key protective factors against adverse outcomes (Afifi & MacMillan, 2011; Yule *et al.*, 2019). For sexually abused children with PTSD, trauma-focused cognitive-behavioral therapy (TF-CBT) has the best evidence for decreasing the likelihood of mental health conditions and improving well-being in victims. Other promising interventions include imaginative play programs, resilient peer treatment and multisystemic therapy for neglected children, and child-parent psychotherapy and TF-CBT for children exposed to IPV presenting with PTSD symptoms (MacMillan *et al.*, 2009). Although there have been important advances over the last 30 years in developing preventive interventions, there is a gap in the field with respect to rigorous program evaluation. This not only involves evaluating the effectiveness of core prevention approaches and components, but also requires attention to implementation considerations, including fit and adaptation in specific sociocultural contexts (Copeland *et al.*, 2021) and motivational factors associated with families’ engagement (e.g., Filion *et al.*, 2020).

Summary

CM is a pervasive problem that unfolds within multiple levels of contexts and has long-lasting, negative consequences across multiple domains of functioning (Figure 1).

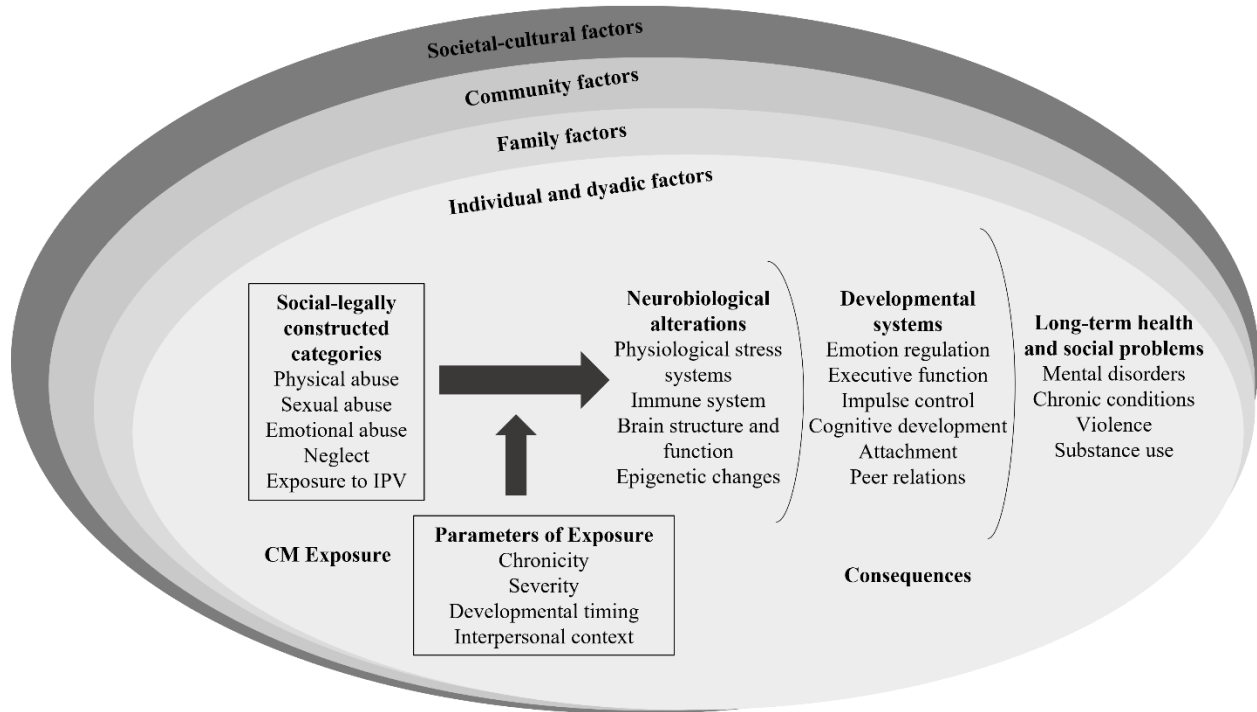


Figure 1. Child maltreatment is embedded in multiple levels of contexts and associated with short- and long-term adverse outcomes.

Globally, we believe that it is a child's right to have a childhood that is not marred by violence, particularly family violence. It is clear that CM has high costs, and remains a public health priority. Failing our capacities to prevent maltreatment (Euser et al., 2015), there needs to be a concerted intervention to prevent maltreatment-related impairments. The ability to resist, recover, rebound, resolve, and realize fully remains possible for maltreated victims. Such resilience processes in and from contexts of adversity have become an increasing focus of

research. To date, though, most studies on resilience focus on psychological processes. The field of CM would benefit from multilevel, multisystem approaches to investigating changes in psychological and biological functioning over time. Most studies take ‘snap shots’ in time which do not inform developmental processes and transitions, and how adaptive functioning may be galvanized and achieved. Longitudinal studies, looking at resilience in the face of impairment, either acute or chronic, are needed to provide information about how best to support individuals in their developmental trajectories. Incorporating a multilevel approach into randomized controlled trials of interventions will also help inform whether the development of disease, including its biological embeddings and associated impairments, may be reversed or prevented (Gonzalez *et al.*, 2018).

Moreover, to date, much of the research in community studies has focused on physical and sexual abuse. Future studies need to integrate a broader range of investigations about emotional abuse and neglect, exposure to IPV, and other events or conditions that threaten children’s well-being (e.g., maltreatment in childcare facilities, peer violence), to generate a more accurate picture of the scope and impact of maltreatment. It is crucial that these forms of maltreatment be soundly conceptualized and operationalized in such studies (Mathews *et al.*, 2020). Meanwhile, CM is a constantly evolving concern. New forms of exposure continue to emerge (e.g., online sexual exploitation), and major events and social changes, such as the COVID-19 pandemic, can bring new challenges to the prevention of and response to CM. Since the start of the COVID-19 pandemic, caregivers have self-reported increased violent behaviors toward their children, and hospitals have recorded more abuse-related injuries, but the ability of CPS to detect and respond to CM has been challenged (Cappa & Jijon, 2021). Continuous surveillance of global and local trends in CM and timely calibration of preventive approaches is

critical.

Finally, given the relatively high prevalence and devastating consequences of maltreatment, it is important that effective preventive interventions continue to be identified and evaluated, and those with the most evidence implemented broadly. Research shows that strategies to prevent maltreatment should begin as early as pregnancy. Families who are particularly at risk require the intense home visitation that programs such as NFP afford to circumvent the risk of maltreatment. Mandatory reporting laws – especially when used as part of a differential response system to enable the provision of support to parents and families – are one vehicle to promote family resilience, to signal when families, as a whole, have fallen outside the social safety net, or where this safety net is otherwise failing. For infants, in particular, it is an opportunity for early intervention, prevention of maltreatment, and prevention of revictimization (Fallon *et al.*, 2013; Wekerle, 2013). The supposition of support systems is that detection of reasonable concerns leads to effective assessment and appropriate response that involves well-resourced, evidence-based decision-making and service provision (Cerulli *et al.*, 2021). Child welfare-involved families where maltreatment is substantiated, in particular, often manifest several adversities in socioeconomic disadvantage, caregiver vulnerabilities, and lack of a positive, supportive social network. They may thus benefit from more extensive and sensitive services (Wekerle *et al.*, 2011). The issue of training in maltreatment is critical to its prevention, and advances have been made in research-based training to recognize and safely respond to violence in the family (e.g., the Violence, Evidence, Guidance, and Action project; The VEGA team, 2022). CM prevention is intertwined with addressing health and gender disparities and promoting a resilient social safety net that can provide early help for later gainful living. Children are indeed our greatest resource, but they have to be alive and well to contribute –

investing in ensuring children's safety in their homes is our collective next, best step.

References

- Afifi, T. O., MacMillan, H. L., 2011. Resilience following child maltreatment: A review of protective factors. *The Canadian Journal of Psychiatry* 56,266-272.
- Angelakis, I., Austin, J. L., Gooding, P., 2020. Association of childhood maltreatment with suicide behaviors among young people: a systematic review and meta-analysis. *JAMA Network Open* 3,e2012563.
- Appleyard, K., Berlin, L. J., Rosanbalm, K. D., Dodge, K. A., 2011. Preventing early child maltreatment: Implications from a longitudinal study of maternal abuse history, substance use problems, and offspring victimization. *Prevention Science* 12,139-149.
- Assink, M., Spruit, A., Schuts, M., et al., 2018. The intergenerational transmission of child maltreatment: A three-level meta-analysis. *Child Abuse & Neglect* 84,131-145.
- Barrett, J., Fleming, A. S., 2011. Annual research review: All mothers are not created equal: Neural and psychobiological perspectives on mothering and the importance of individual differences. *Journal of Child Psychology and Psychiatry* 52,368-397.
- Batzer, S., Berg, T., Godinet, M. T., Stotzer, R. L., 2018. Efficacy or chaos? Parent-child interaction therapy in maltreating populations: A review of research. *Trauma, Violence, & Abuse* 19,3-19.
- Belsky, J., 1980. Child maltreatment: An ecological integration. *American Psychologist* 35,320-335.

Belsky, J., 1984. The determinants of parenting: A process model. *Child Development* 55,83-96.

Cappa, C., Jijon, I., 2021. COVID-19 and violence against children: A review of early studies. *Child Abuse & Neglect* 116,105053.

Carr, A., Duff, H., Craddock, F., 2020. A systematic review of reviews of the outcome of noninstitutional child maltreatment. *Trauma, Violence, & Abuse* 21,828-843.

Cerulli, C., Cicchetti, D., Handley, E. D., 2021. Transforming the paradigm of child welfare. *Development and Psychopathology* 33,377-393.

Chaffin, M., Silovsky, J.F., Funderburk, B., et al., 2004. Parent-child interaction therapy with physically abusive parents: Efficacy for reducing future abuse reports. *Journal of Consulting and Clinical Psychology* 72,500–510.

Chan, K.L., 2011. Children exposed to child maltreatment and intimate partner violence: A study of co-occurrence among Hong Kong Chinese families. *Child Abuse & Neglect* 35,532-542.

Child Welfare Information Gateway, 2021. Child abuse and neglect fatalities 2019: Statistics and interventions. <https://www.childwelfare.gov/pubs/factsheets/fatality/> (accessed 2.19.2022).

Christian, C.W., Committee on Child Abuse and Neglect, Crawford-Jakubiak, J.E., et al., 2015. The evaluation of suspected child physical abuse. *Pediatrics* 135,1337-1354.

Cicchetti, D., 2016. Socioemotional, personality, and biological development: Illustrations from a multilevel developmental psychopathology perspective on child maltreatment. *Annual Review of Psychology* 67,187-211.

Cicchetti, D., Lynch, M., 1993. Toward an ecological/transactional model of community violence and child maltreatment: Consequences for children’s development. *Psychiatry* 56,96–118.

Copeland, L., Littlecott, H., Couturiaux, D., et al., 2021. The what, why and when of adapting interventions for new contexts: A qualitative study of researchers, funders, journal editors and practitioners' understandings. *PloS one* 16,e0254020.

Currie, J., Widom, C.S., 2010. Long-term consequences of child abuse and neglect on adult economic well-being. *Child Maltreatment* 15,111–120.

da Silva Ferreira, G.C., Crippa, J.A., de Lima Osório, F., 2014. Facial emotion processing and recognition among maltreated children: a systematic literature review. *Frontiers in Psychology* 5,1460.

ECPAT International, 2022. The sexual exploitation of boys. <https://ecpat.org/global-boys-initiative/> (accessed 2.21.2022).

Euser, S., Alink, L. R., Stoltenborgh, M., Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., 2015. A gloomy picture: A meta-analysis of randomized controlled trials reveals disappointing effectiveness of programs aiming at preventing child maltreatment. *BMC public health* 15,1-14.

Fallon, B., Filippelli, J., Lefebvre, R., et al., 2020. Ontario incidence study of reported child abuse and neglect - 2018. Toronto, ON: Child Welfare Research Portal.

Fallon, B., Ma, J., Allan, K., Trocmé, N., Jud, A., 2013. Child maltreatment-related investigations involving infants: Opportunities for resilience? *International Journal of Child and Adolescent Resilience* 1,35–47.

Filion, F., Lachapelle, M., Gagné, L. M., Gagné, M. H., 2020. Which risk factors for child maltreatment predict mothers' enrollment in a parenting support program? *Prevention Science* 21,1007-1016.

Finkelhor, D., Ormrod, R. K., Turner, H. A., 2007. Poly-victimization: A neglected component in child victimization trauma. *Child Abuse & Neglect* 31,7–26.

Finkelhor, D., Saito, K., Jones, L., 2021. Updated trends in child maltreatment, 2019. Durham, NH: Crimes Against Children Research Center. <http://www.unh.edu/ccrc/> (accessed 2.20.2022).

Finkelhor, D., Turner, H. A., Shattuck, A., Hamby, S. L., 2013. Violence, crime, and abuse exposure in a national sample of children and youth: An update. *JAMA pediatrics* 167,614-621.

Flaherty, E. G., MacMillan, H. L., Committee on Child Abuse and Neglect, et al., 2013. Caregiver-fabricated illness in a child: a manifestation of child maltreatment. *Pediatrics* 132,590-597.

Fry, D., McCoy, A., Swales, D., 2012. The consequences of maltreatment on children's lives: a systematic review of data from the East Asia and Pacific Region. *Trauma, Violence, & Abuse* 13,209-233.

Gardner, M. J., Thomas, H. J., Erskine, H. E., 2019. The association between five forms of child maltreatment and depressive and anxiety disorders: A systematic review and meta-analysis. *Child Abuse & Neglect* 96,104082.

Gilbert, R., Kemp, A., Thoburn, J., et al., 2009. Recognising and responding to child maltreatment. *The Lancet* 373,167–180.

Gilbert, R., Fluke, J., O'Donnell, M., et al., 2012. Child maltreatment: variation in trends and policies in six developed countries. *The Lancet* 379,758-772.

Godbout, N., Vaillancourt-Morel, M. P., Bigras, N., et al., 2019. Intimate partner violence in

male survivors of child maltreatment: A meta-analysis. *Trauma, Violence, & Abuse* 20,99-113.

Gonzalez, A., Catherine, N., Boyle, M., et al., 2018. Healthy Foundations Study: a randomised controlled trial to evaluate biological embedding of early-life experiences. *BMJ open* 8,018915.

Gonzalez, A., Jenkins, J. M., Steiner, M., Fleming, A.S., 2012. Maternal early life experiences and parenting: The mediating role of cortisol and executive function. *Journal of the American Academy of Child & Adolescent Psychiatry* 51,673-682.

Gonzalez, A., MacMillan, H.L., 2008. Preventing child maltreatment: An evidence-based update. *Journal of Postgraduate Medicine* 54,280–286.

Goodman, G.S., Quas, J.A., Ogle, C.M., 2010. Child maltreatment and memory. *Annual Review of Psychology* 61,325-351.

Gubbels, J., van der Put, C. E., Assink, M., 2019. The effectiveness of parent training programs for child maltreatment and their components: A meta-analysis. *International Journal of Environmental Research and Public Health* 16,2404.

Herman, J. L., 1992. *Trauma and recovery: The aftermath of violence* (2015 printed version). Basic Books, New York.

Hillis, S., Mercy, J., Amobi, A., Kress, H., 2016. Global prevalence of past-year violence against children: A systematic review and minimum estimates. *Pediatrics* 137,e20154079.

Hughes, K., Bellis, M.A., Hardcastle, K.A., et al., 2017. The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. *The Lancet Public Health* 2,356-366.

ISPCAN, 2021. *World perspectives on child abuse* (14th ed.). Aurora, CO, U.S.

Jonson-Reid, M., Drake, B., Constantino, J. N., et al., 2018. A randomized trial of home visitation for CPS-involved families: The moderating impact of maternal depression and cps

history. *Child Maltreatment* 23,281–293.

Li, S., Zhao, F., Yu, G., 2019. Childhood maltreatment and intimate partner violence victimization: A meta-analysis. *Child Abuse & Neglect* 88,212-224.

Lund, J.I., Toombs, E., Radford, A., et al., 2020. Adverse childhood experiences and executive function difficulties in children: A Systematic review. *Child Abuse & Neglect* 106,104485.

McLaughlin, K. A., Sheridan, M. A. and Nelson, C. A., 2017. Neglect as a violation of species-expectant experience: neurodevelopmental consequences. *Biological Psychiatry*, 82,462-471.

MacMillan, H.L., Wathen, C.N., Barlow, J., et al., 2009. Interventions to prevent child maltreatment and associated impairment. *The Lancet* 373,250–266.

Madigan, S., Cyr, C., Eirich, R., et al., 2019. Testing the cycle of maltreatment hypothesis: Meta-analytic evidence of the intergenerational transmission of child maltreatment. *Development and Psychopathology* 31,23-51.

Manly, J. T., 2005. Advances in research definitions of child maltreatment. *Child Abuse and Neglect* 29,425– 439.

Masson, M., Bussieres, E.L., East-Richard, C., et al., 2015. Neuropsychological profile of children, adolescents and adults experiencing maltreatment: a meta-analysis. *The Clinical Neuropsychologist* 29,573-594.

Mathews, B., Pacella, R., Dunne, M.P., Simunovic, M., Marston, C., 2020. Improving measurement of child abuse and neglect: A systematic review and analysis of national prevalence studies. *PLoS One* 15,e0227884.

McTavish, J. R., MacGregor, J. C., Wathen, C. N., MacMillan, H. L., 2016. Children's exposure to intimate partner violence: An overview. *International Review of Psychiatry* 28,504-518.

McTavish, J.R., Sverdlichenko, I., MacMillan, H.L., Wekerle, C., 2019. Child sexual abuse, disclosure and PTSD: A systematic and critical review. *Child Abuse & Neglect* 92,196-208.

Mejdoubi, J., van den Heijkant, S. C., van Leerdam, F. J., et al., 2015. The effect of VoorZorg, the Dutch nurse-family partnership, on child maltreatment and development: A randomized controlled trial. *PLoS One* 10,e0120182.

Moody, G., Cannings-John, R., Hood, K., Kemp, A., Robling, M., 2018. Establishing the international prevalence of self-reported child maltreatment: a systematic review by maltreatment type and gender. *BMC Public Health* 18,1-15.

Nguyen, K. H., Kress, H., Atuchukwu, V., et al., 2021. Disclosure of sexual violence among girls and young women aged 13 to 24 years: Results from the violence against children surveys in Nigeria and Malawi. *Journal of Interpersonal Violence* 36,2188-2204.

Nguyen, K.H., Padilla, M., Villaveces, A., et al., 2019. Coerced and forced sexual initiation and its association with negative health outcomes among youth: Results from the Nigeria, Uganda, and Zambia Violence Against Children Surveys. *Child Abuse & Neglect* 96,104074.

Nikulina, V., Widom, C.S., 2013. Child maltreatment and executive functioning in middle adulthood: a prospective examination. *Neuropsychology* 27,417-427.

Norman, R. E., Byambaa, M., De, R. et al., 2012. The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. *PLoS Med* 9,e1001349.

Olds, D. L., Eckenrode, J., Henderson, C. R., et al., 1997. Long-term effects of home visitation on maternal life course and child abuse and neglect. Fifteen-year follow-up of a randomized trial.

JAMA 278,637–643.

Olds, D. L., Henderson, C. R., Chamberlin, R., Tatelbaum, R., 1986. Preventing child abuse and neglect: a randomized trial of nurse home visitation. *Pediatrics* 78,65–78.

Olds, D., Kitzman, K., Anson, K., et al., 2019. Prenatal and infancy nurse home visiting effects on mothers: 18-year follow-up of a randomized trial. *Pediatrics* 144,e20183889

Palusci, V. J., Covington, T. M., 2014. Child maltreatment deaths in the US national child death review case reporting system. *Child Abuse & Neglect*, 38,25-36.

Park, S., Kim, S. H., 2018. The power of family and community factors in predicting dating violence: A meta-analysis. *Aggression and Violent Behavior*, 40,19-28.

Robling, M., Bekkers, M. J., Bell, K., et al., 2016. Effectiveness of a nurse-led intensive home-visit programme for first-time teenage mothers (Building Blocks): A pragmatic randomised controlled trial. *The Lancet* 387,146-155.

Romano, E., Babchishin, L., Marquis, R., et al., 2015. Childhood maltreatment and educational outcomes. *Trauma, Violence, & Abuse* 16,418-437.

Russotti, J., Warmingham, J. M., Duprey, E. B., et al., 2021. Child maltreatment and the development of psychopathology: The role of developmental timing and chronicity. *Child Abuse & Neglect* 120,105215.

Scott, K.M., Von Korff, M., Angermeyer, M.C., et al., 2011. Association of childhood adversities and early-onset mental disorders with adult-onset chronic physical conditions. *Archives of General Psychiatry* 68,838–844.

Shields, M., Tonmyr, L., Hovdestad, W.E., et al., 2020. Exposure to family violence from childhood to adulthood. *BMC Public Health* 20,1-15.

Shonkoff, J.P., Boyce, W.T., McEwen, B.S., 2009. Neuroscience, molecular biology, and the

childhood roots of health disparities: building a new framework for health promotion and disease prevention. *JAMA* 301,2252-2259.

Skowron, E.A., Kozlowski, J.M., Pincus, A.L., 2010. Differentiation, self–other representations, and rupture–repair processes: Predicting child maltreatment risk. *Journal of Counseling Psychology* 57,304-316.

Smith, S. G., Fowler, K. A., Niolon, P. H., 2014. Intimate partner homicide and corollary victims in 16 states: National Violent Death Reporting System, 2003–2009. *American Journal of Public Health*, 104,461-466.

Smith, K.E., Pollak, S.D., 2021. Rethinking concepts and categories for understanding the neurodevelopmental effects of childhood adversity. *Perspectives on Psychological Science* 16,67-93.

Stein, J. A., Leslie, M. B., Nyamathi, A., 2002. Relative contributions of parent substance use and childhood maltreatment to chronic homelessness, depression, and substance abuse problems among homeless women: Mediating roles of self-esteem and abuse in adulthood. *Child Abuse & Neglect* 26,1011-1027.

Stith, S.M., Liu, T., Davies, L.C., et al., 2009 Risk factors in child maltreatment: A meta-analytic review of the literature. *Aggression and Violent Behavior* 14,13-29.

Stoltenborgh, M., Bakermans-Kranenburg, M.J., Alink, L.R., van IJzendoorn, M.H., 2015. The prevalence of child maltreatment across the globe: Review of a series of meta-analyses. *Child Abuse Review* 24,37-50.

Stoltenborgh, M., van IJzendoorn, M., Euser, E., Bakermans-Kranenburg, M., 2011. A global perspective on child sexual abuse: Meta-analysis of prevalence around the world. *Child Maltreatment* 16,79-101.

Stoltenborgh, M., Bakermans-Kranenburg, M. J., Alink, L., van IJzendoorn, M., 2012. The universality of childhood emotional abuse: A meta-analysis of worldwide prevalence. *Journal of Aggression, Maltreatment and Trauma* 21,870-890.

Stoltenborgh, M., Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., Alink, L. R. A., 2013. Cultural–geographical differences in the occurrence of child physical abuse? A meta-analysis of global prevalence. *International Journal of Psychology* 48,81–94.

Teicher, M.H., Samson, J.A., Anderson, C.M., Ohashi, K., 2016. The effects of childhood maltreatment on brain structure, function and connectivity. *Nature Reviews Neuroscience* 17,652-666.

The VEGA team, 2022. VEGA Family Violence Education Resources.

<https://vegaproject.mcmaster.ca/> (accessed 2/21/2022).

Thomas, R., Zimmer-Gembeck, M.J., 2012. Parent-child interaction therapy: An evidence-based treatment for child maltreatment. *Child Maltreatment* 17,253–266.

United Nations General Assembly, 2015. Sustainable Development Goals.

<https://sdgs.un.org/goals> (accessed 2.19.2022).

US Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, 2021. Child Maltreatment 2019. <https://www.acf.hhs.gov/cb/report/child-maltreatment-2019> (accessed 10.22.2021).

US Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, 2022. Child Maltreatment 2020. <https://www.acf.hhs.gov/cb/report/child-maltreatment-2020> (accessed 3.15.2022).

Van der Put, C. E., Assink, M., Gubbels, J., Boekhout van Solinge, N. F., 2018. Identifying effective components of child maltreatment interventions: A meta-analysis. *Clinical Child and Family Psychology Review* 21,171-202.

Van der Put, C.E., Assink, M., van Solinge, N.F.B., 2017 Predicting child maltreatment: A meta-analysis of the predictive validity of risk assessment instruments. *Child Abuse & Neglect* 73,71-88.

Warmingham, J.M., Handley, E.D., Rogosch, F.A., et al., 2019. Identifying maltreatment subgroups with patterns of maltreatment subtype and chronicity: A latent class analysis approach. *Child Abuse & Neglect* 87,28-39.

Wekerle, C., 2011. The dollars and senselessness in failing to prioritize child maltreatment prevention. *Child Abuse & Neglect* 35,159–161.

Wekerle, C., 2013. Resilience in the context of child maltreatment: Connections to the practice of mandatory reporting. *Child Abuse & Neglect*, 37,93-101.

Wekerle, C., Waechter, R., Chen, M., et al., 2011. The Maltreatment and Adolescent Pathways (MAP) Project feasibility study: Are youth involved with child protection services a feasible sub-

population for study? In: Leveille, S., Trocme, N., Brown, I., Chamberland, C. (Eds.), *Research-Community Partnerships in Child Welfare*. Centre of Excellence for Child Welfare, Toronto, Canada, pp. 59–90.

Werner, K.B., McCutcheon, V.V., Challa, M., et al., 2016. The association between childhood maltreatment, psychopathology, and adult sexual victimization in men and women: Results from three independent samples. *Psychological Medicine* 46,563-573.

Yoon, S., Howell, K., Dillard, R., et al., 2019. Resilience following child maltreatment: Definitional considerations and developmental variations. *Trauma, Violence, & Abuse* 22,541-559.

Young, N.K., Boles, S.M., Otero, C., 2007. Parental substance use disorders and child maltreatment: Overlap, gaps, and opportunities. *Child Maltreatment* 12,137-149.

Young, J.C., Widom, C.S., 2014. Long-term effects of child abuse and neglect on emotion processing in adulthood. *Child Abuse & Neglect* 38,1369-1381.

Yule, K., Houston, J., Grych, J., 2019. Resilience in children exposed to violence: A meta-analysis of protective factors across ecological contexts. *Clinical Child and Family Psychology Review* 22,406-431.

Zielinski, D.S., 2009. Child maltreatment and adult socioeconomic well-being. *Child Abuse & Neglect* 33,666–678.

Ziobrowski, H.N., Buka, S.L., Austin, S.B., et al., 2020. Using latent class analysis to empirically classify maltreatment according to the developmental timing, duration, and co-occurrence of abuse types. *Child Abuse & Neglect* 107,104574.